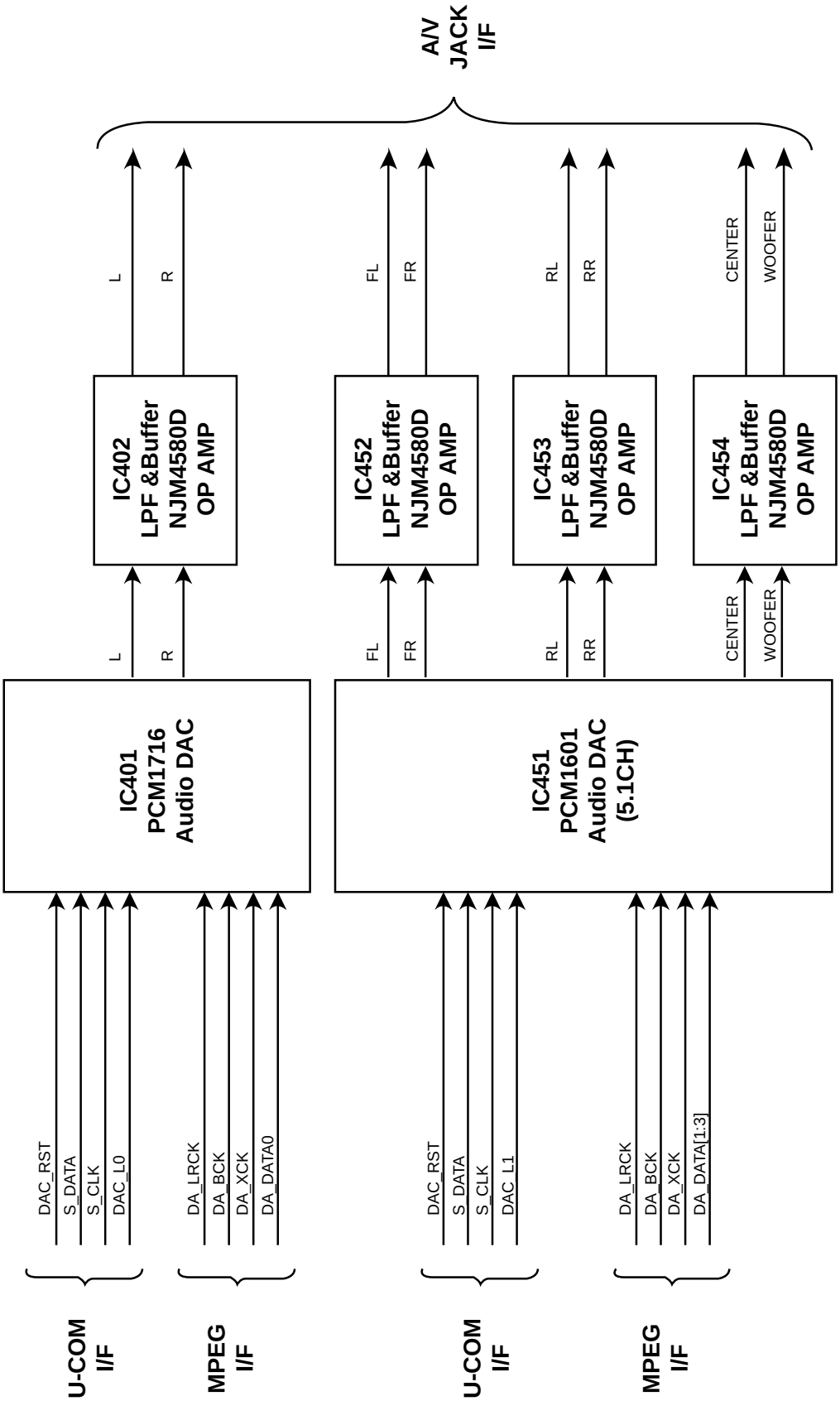
LG

DVD-4730

MODEL

SERVICE MANUAL

4. Audio Block Diagram



CIRCUIT DIAGRAM

1. POWER(SMPS) CIRCUIT DIAGRAM

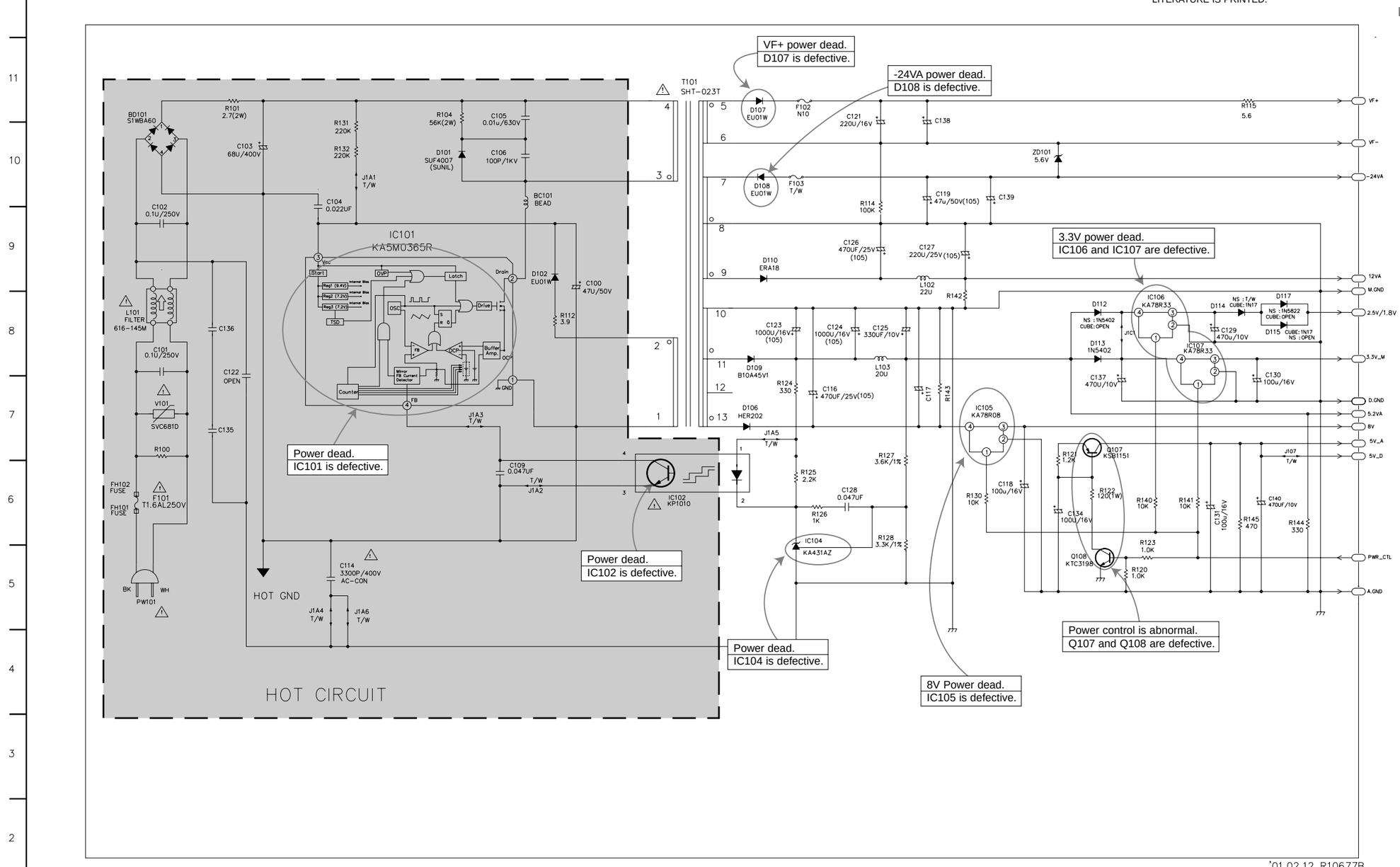
IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE LG ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION.

THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

NOTE :

1. Shaded(■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.



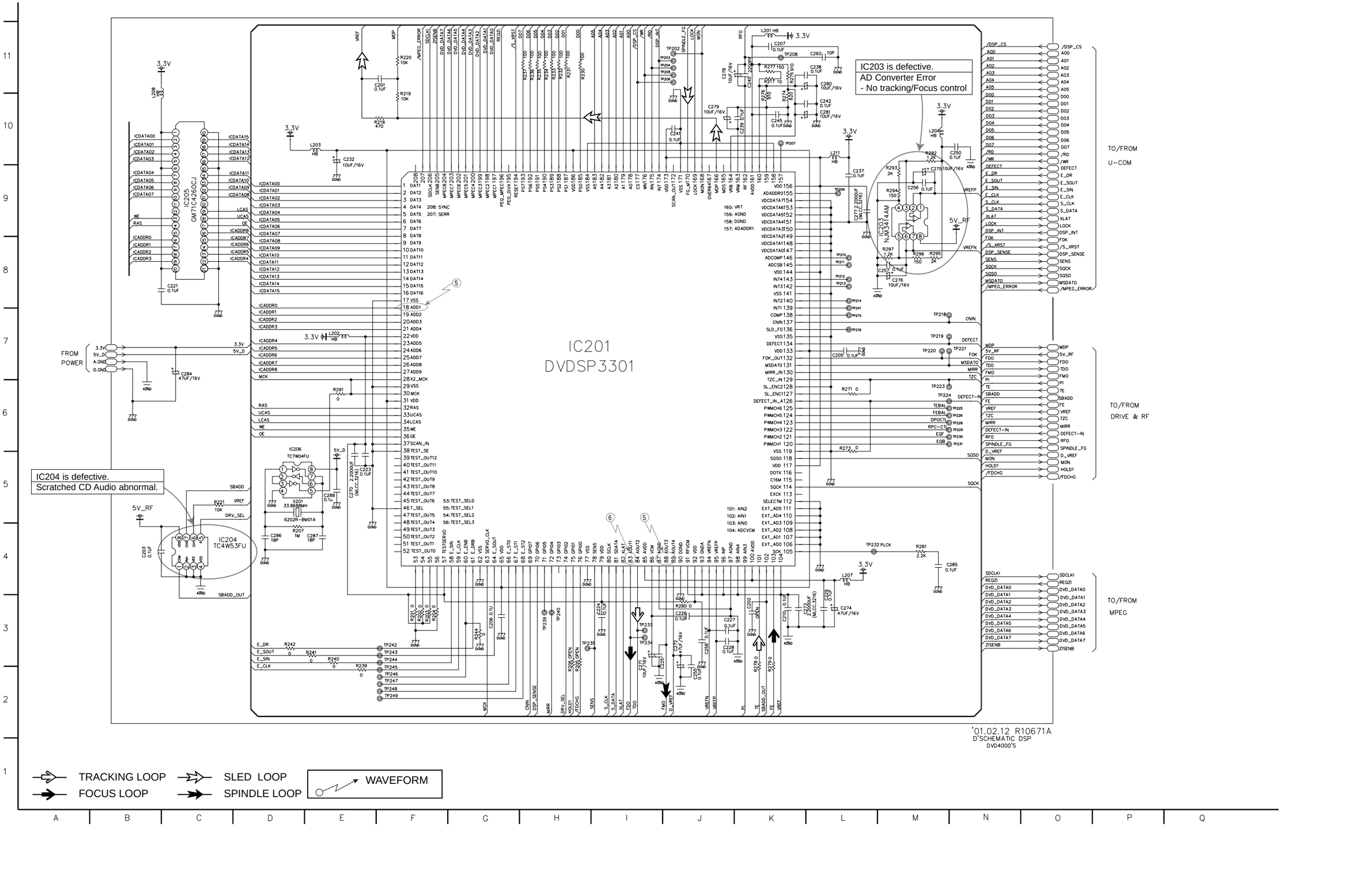
LOCATION GUIDE

BC101	G10
BD101	B11
C100	G9
C101	B8
C102	B9
C103	C10
C104	D10
C105	F11
C106	F10
C109	F6
C114	D5
C116	J7
C117	K7
C118	L6
C119	K10
C121	J11
C122	C8
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	O8
C130	O7
C131	O6
C134	M6
C135	C7
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D.GND	P7
D101	E10
D102	F9
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D112	M8
D113	M8
D114	O8
D115	O8
D117	O8
F102	J11
F103	J10
FH101	B6
FH102	B6
IC101	E9
IC102	H6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
J107	O7
J1A1	D10
J1A2	F6
J1A3	F7
J1A4	D5
J1A5	I7
J1A6	D5
J1C1	M8
L101	B8
L102	K9
L103	K8
M.GND	P9
PW101	B5
PWR_CTL	P5
Q107	M7
Q108	M5
R100	B7
R101	C11
R104	E11
R112	G8
R114	J10
R115	O11
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R131	D10
R132	D10
R140	N6
R141	N6
R142	K8
R143	K7
R144	O6
R145	O6
T101	H11
V101	B7
VF+	P11
VF-	P10
ZD101	L10

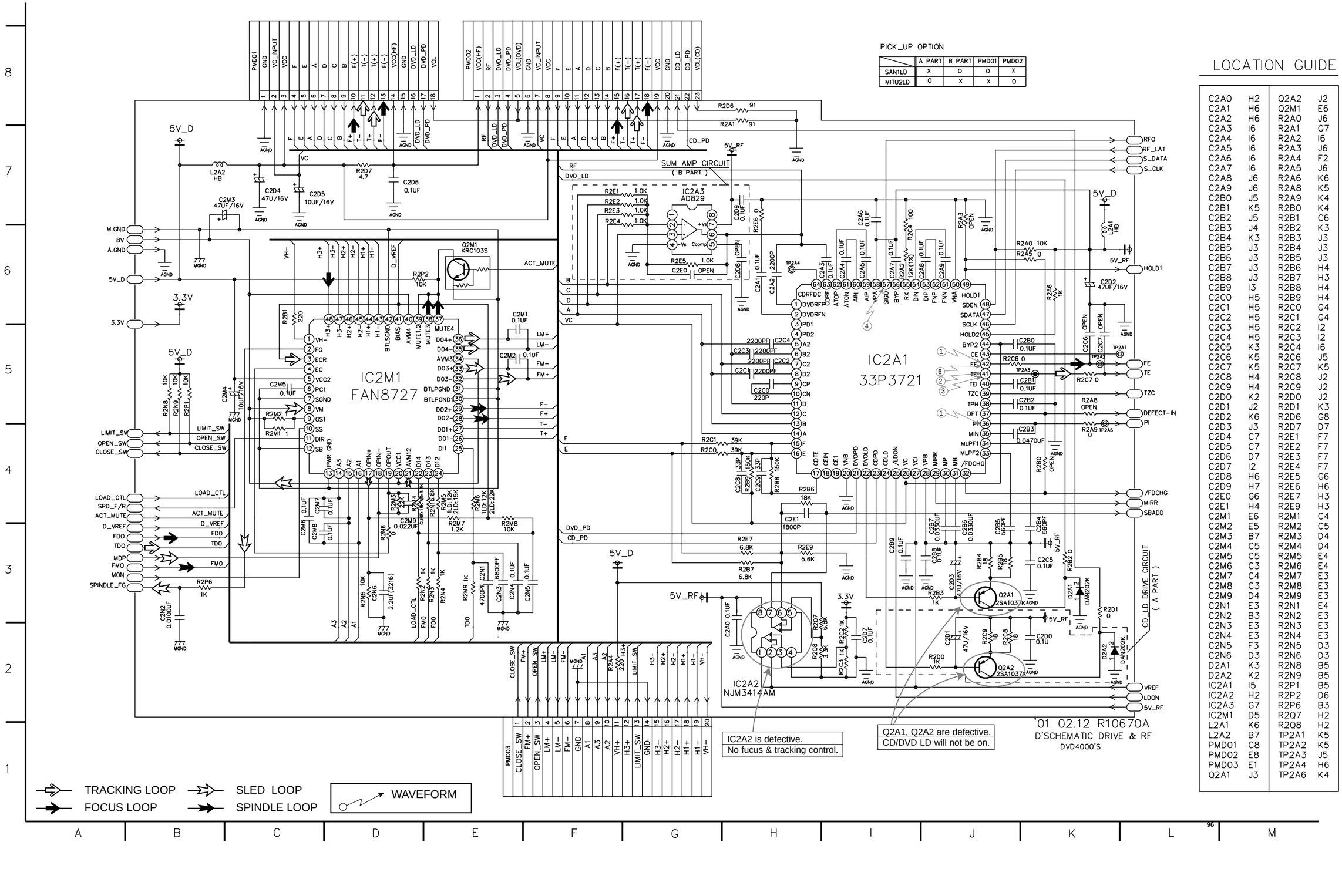
NOTES) ⚠ Warning
Parts that are shaded are critical With respect to risk of fire or electricial shock.

NOTES : Symbol denotes AC ground.
Symbol denotes DC chassis ground.

2. DVD DSP CIRCUIT DIAGRAM



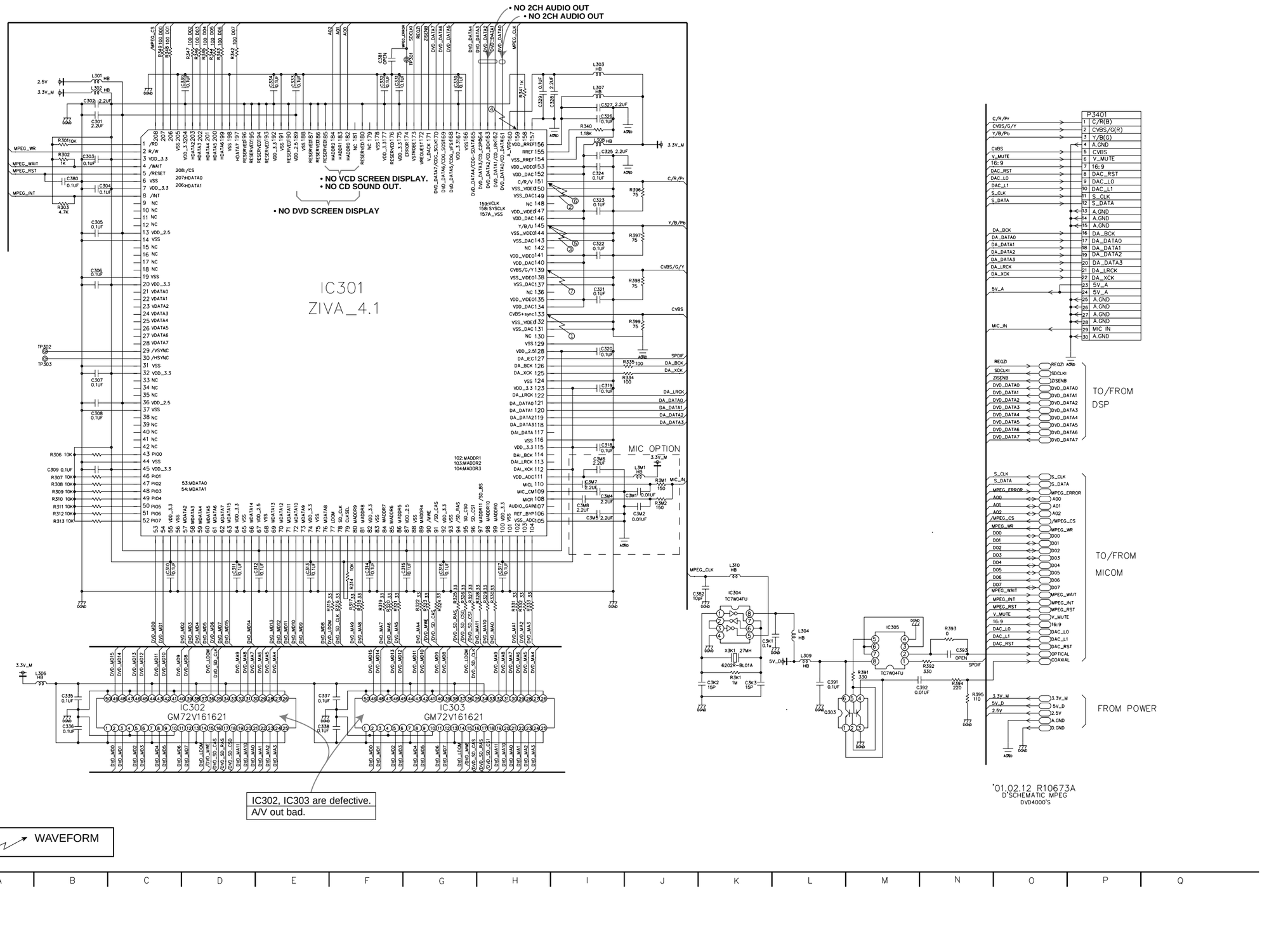
3. DRIVE & RF CIRCUIT DIAGRAM



LOCATION GUIDE

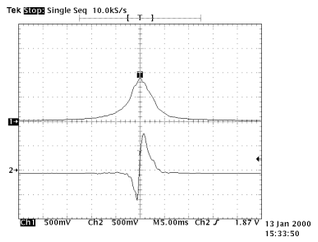
C2A0	H2	Q2A2	J2
C2A1	H6	Q2M1	E6
C2A2	H6	R2A0	J6
C2A3	I6	R2A1	G7
C2A4	I6	R2A2	I6
C2A5	I6	R2A3	J6
C2A6	I6	R2A4	F2
C2A7	I6	R2A5	J6
C2A8	J6	R2A6	K6
C2A9	J6	R2A8	K5
C2B0	J5	R2A9	K4
C2B1	K5	R2B0	K4
C2B2	J5	R2B1	C6
C2B3	J4	R2B2	K3
C2B4	K3	R2B3	J3
C2B5	J3	R2B4	J3
C2B6	J3	R2B5	J3
C2B7	J3	R2B6	H4
C2B8	J3	R2B7	H3
C2B9	I3	R2B8	H4
C2C0	H5	R2B9	H4
C2C1	H5	R2C0	G4
C2C2	H5	R2C1	G4
C2C3	H5	R2C2	I2
C2C4	H5	R2C3	I2
C2C5	K3	R2C4	I6
C2C6	K5	R2C5	J5
C2C7	K5	R2C7	K5
C2C8	H4	R2C8	J2
C2C9	H4	R2C9	J2
C2D0	K2	R2D0	J2
C2D1	J2	R2D1	K3
C2D2	K6	R2D6	G8
C2D3	J3	R2D7	D7
C2D4	C7	R2E1	F7
C2D5	C7	R2E2	F7
C2D6	D7	R2E3	F7
C2D7	I2	R2E4	F7
C2D8	H6	R2E5	G6
C2D9	H7	R2E6	H6
C2E0	G6	R2E7	H3
C2E1	H4	R2E9	H3
C2M1	E6	R2M1	C4
C2M2	E5	R2M2	C5
C2M3	B7	R2M3	D4
C2M4	C5	R2M4	D4
C2M5	C5	R2M5	E4
C2M6	C3	R2M6	E4
C2M7	C4	R2M7	E3
C2M8	C3	R2M8	E3
C2M9	D4	R2M9	E3
C2N1	E3	R2N1	E4
C2N2	B3	R2N2	E3
C2N3	E3	R2N3	E3
C2N4	E3	R2N4	E3
C2N5	F3	R2N5	D3
C2N6	D3	R2N6	D3
D2A1	K3	R2N8	B5
D2A2	K2	R2N9	B5
IC2A1	I5	R2P1	B5
IC2A2	H2	R2P2	D6
IC2A3	G7	R2P6	B3
IC2M1	D5	R2Q7	H2
L2A1	K6	R2Q8	H2
L2A2	B7	TP2A1	K5
PMD01	C8	TP2A2	K5
PMD02	E8	TP2A3	J5
PMD03	E1	TP2A4	H6
Q2A1	J3	TP2A6	K4

4. MPEG CIRCUIT DIAGRAM



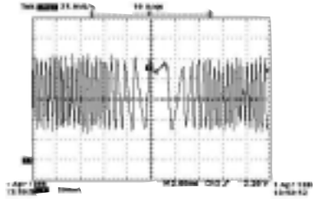
• WAVEFORMS

①



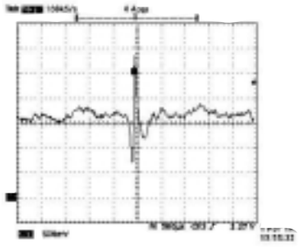
IC2A1 Pin 42, Focus Error
IC2A1 Pin 36, Pi

②



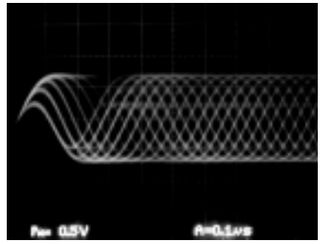
IC2A1 Pin 41
Tracking Error

③



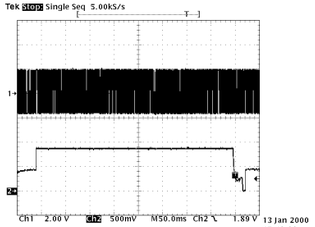
IC2A1 Pin 41
VBR TRACKING Error

④



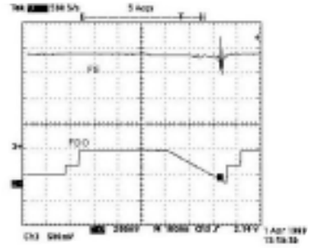
IC2A1 Pin 57,
RF

⑤



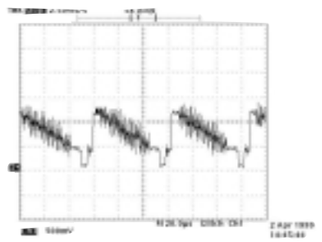
IC201 Pin 88, SLED Drive(FMO)
IC201 Pin 18, SLED FG

⑥



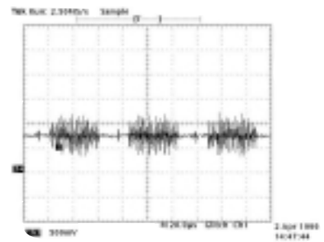
IC2A1 Pin42, Focus Error(in Focus Search)
IC201 Pin 83, Focus Drive(FDO)

①



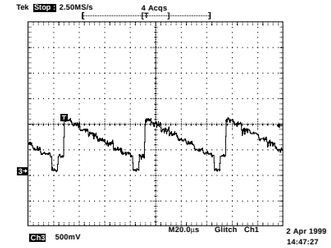
IC301 Pin 133, Composite

②



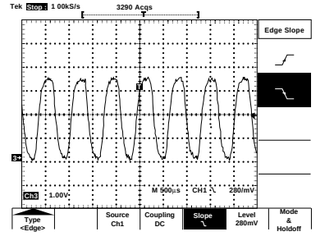
IC301 Pin 151, Chrominance
(Super video out Mode)

③



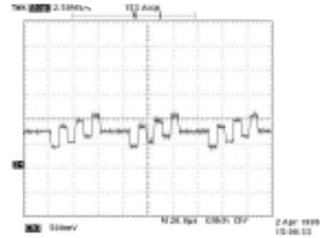
IC301 Pin 145, Luminance
(Super video out Mode)

④



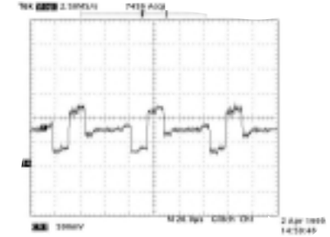
IC301 Pin 159,
MPEG Clock(27MHz)

⑤



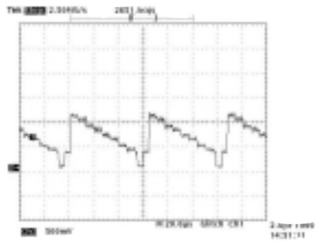
IC301 Pin 145
Component Pb

⑥



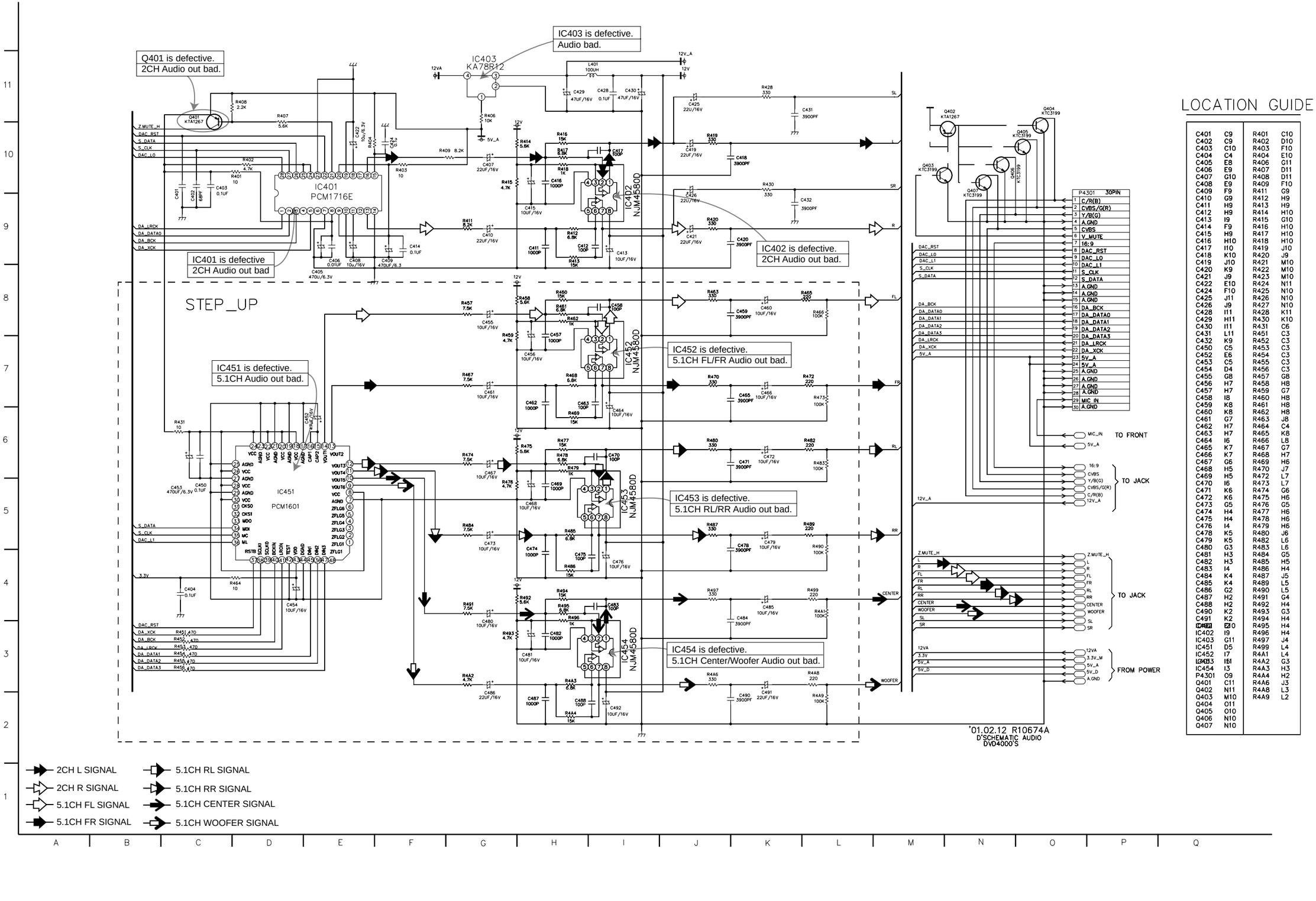
IC301 Pin 151
Component Pr

⑦



IC301 Pin 139
Component Y

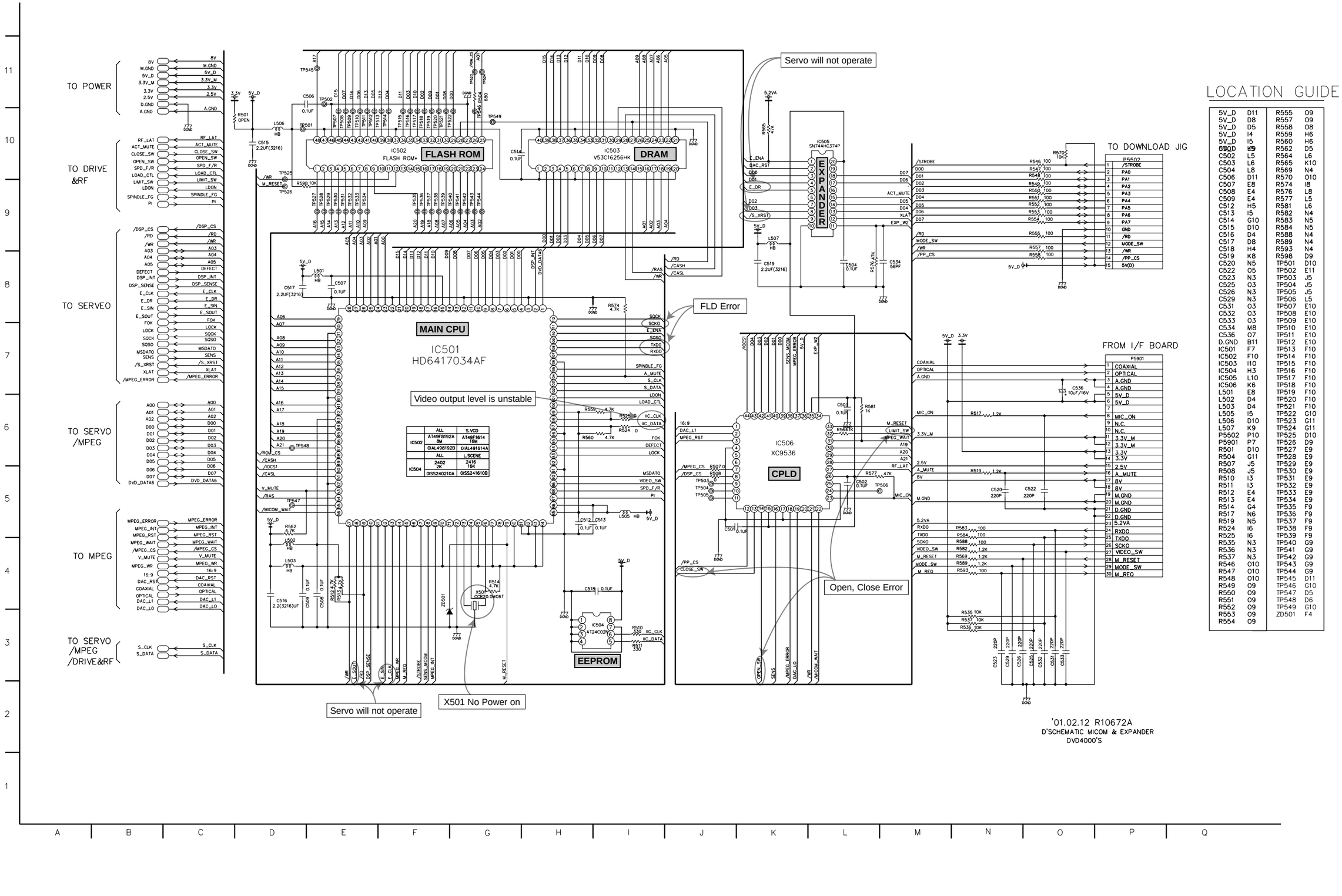
5. AUDIO DM & 5.1CH CIRCUIT DIAGRAM



LOCATION GUIDE

C401	C9	R401	C10
C402	C9	R402	D10
C403	C10	R403	F10
C404	C4	R404	E10
C405	E8	R406	G11
C406	E9	R407	D11
C407	G10	R408	D11
C408	E9	R409	F10
C409	F9	R411	G9
C410	G9	R412	H9
C411	H9	R413	H9
C412	H9	R414	H10
C413	I9	R415	G10
C414	F9	R416	H10
C415	H9	R417	H10
C416	H10	R418	H10
C417	I10	R419	J10
C418	K10	R420	J9
C419	J10	R421	M10
C420	K9	R422	M10
C421	J9	R423	M10
C422	E10	R424	N11
C424	F10	R425	N10
C425	J11	R426	N10
C426	J9	R427	N10
C428	I11	R428	K11
C429	H11	R430	K10
C430	I11	R431	C6
C431	L11	R451	C3
C432	K9	R452	C3
C450	C5	R453	C3
C452	E6	R454	C3
C453	C5	R455	C3
C454	D4	R456	C3
C455	G8	R457	G8
C456	H7	R458	H8
C457	H7	R459	G7
C458	I8	R460	H8
C459	K8	R461	H8
C460	K8	R462	H8
C461	G7	R463	J8
C462	H7	R464	C4
C463	H7	R465	K8
C464	I6	R466	L8
C465	K7	R467	G7
C466	K7	R468	H7
C467	G6	R469	H6
C468	H5	R470	J7
C469	H5	R472	L7
C470	I6	R473	L7
C471	K6	R474	G6
C472	K6	R475	H6
C473	G5	R476	G5
C474	H4	R477	H6
C475	H4	R478	H6
C476	I4	R479	H6
C478	K5	R480	J6
C479	K5	R482	L6
C480	G3	R483	L6
C481	H3	R484	G5
C482	H3	R485	H5
C483	I4	R486	H4
C484	K4	R487	J5
C485	K4	R489	L5
C486	G2	R490	L5
C487	H2	R491	G4
C488	H2	R492	H4
C490	K2	R493	G3
C491	K2	R494	H4
[illegible]	[illegible]	R495	H4
IC402	I9	R496	H4
IC403	G11	R497	J4
IC451	D5	R499	L4
IC452	I7	R4A1	L4
[illegible]	[illegible]	R4A2	G3
IC454	I3	R4A3	H3
P4301	O9	R4A4	H2
Q401	C11	R4A6	L3
Q402	N11	R4A8	L3
Q403	M10	R4A9	L2
Q404	O11		
Q405	O10		
Q406	N10		
Q407	N10		

6. µ-COM/EXPANDER CIRCUIT DIAGRAM



7. DIGITRON(TIMER) & KEY CIRCUIT DIAGRAM

SW509 is defective.
Direction Key is defect.

JS901 is defective.
SCAN +/- will not operate.

IC902 is defective.
Reset Error.

RC901 is defective.
R/C Error.

DIG901 is defective.
FLD is distorted.

KEY BOARD ASSY

POWER LED BOARD ASSY

IC901 UPD78032

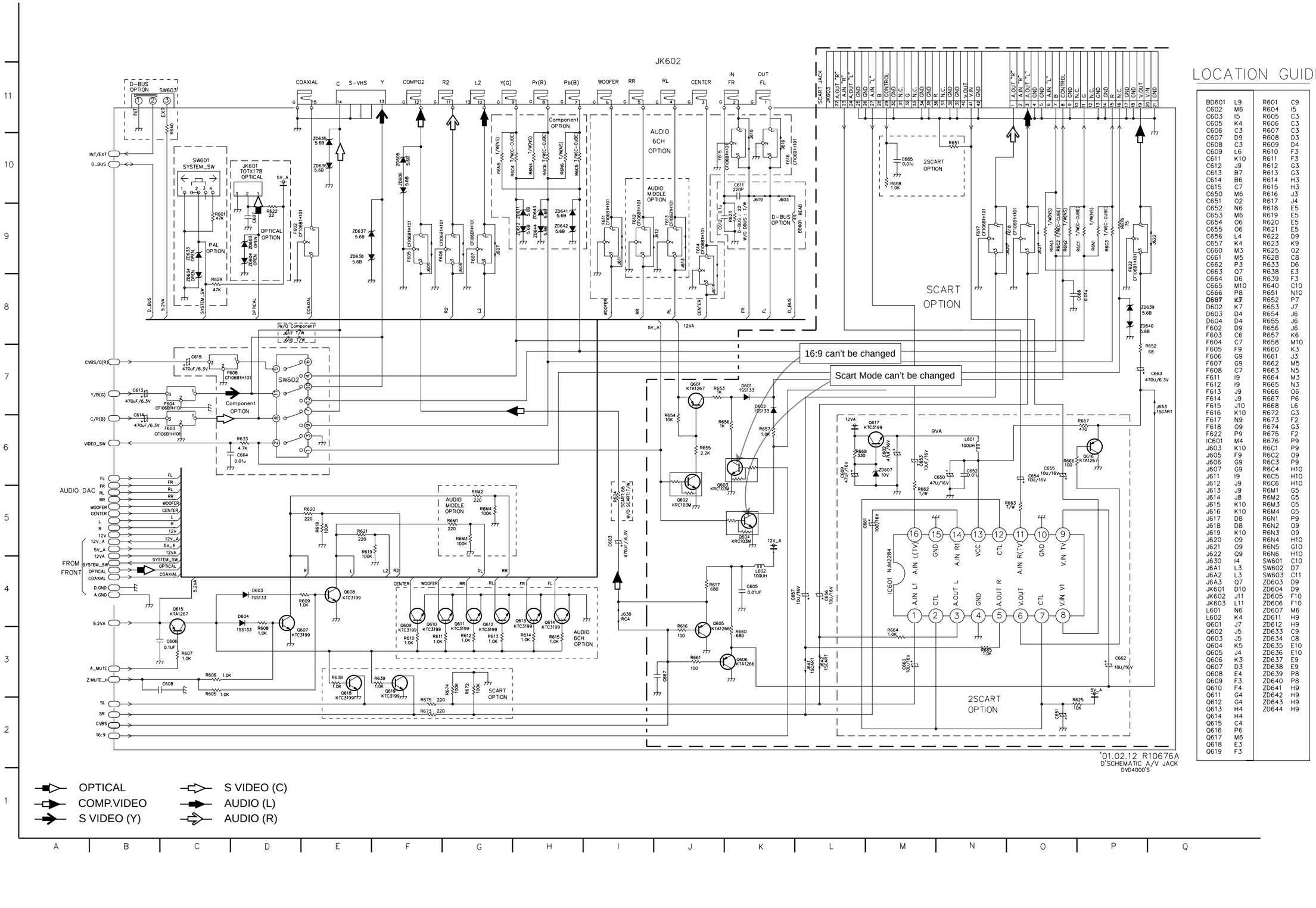
MIC

'01.02.12 R10675A
D'SCHEMATIC FRONT U-COM
DVD4000'S

LOCATION GUIDE

C801	F5	R907	B11
C802	F4	R912	C11
C803	G4	R921	E11
C804	H4	R922	C9
C805	I4	R923	C9
C806	H4	R924	D9
C807	H4	R925	D9
C810	I3	R926	F8
C813	I4	R927	G8
C817	I2	R928	G8
C821	K1	R929	G8
C822	H3	R930	G8
C823	G3	R931	H8
C824	G3	R932	I9
C901	H9	R933	I8
C902	I9	R934	L7
C903	I9	R935	L7
C904	J9	R936	M7
C905	G8	R937	M8
C906	H8	R938	J8
C907	I8	R939	G7
C908	N4	R941	B11
C909	N4	R951	M10
C910	O5	R952	M10
C911	O5	R953	N10
C912	I9	R954	N10
C913	H6	R955	N10
C914	H6	R956	N10
D.GND	P4	R957	N10
D909	H7	R958	N10
DIG901	P11	R959	N10
F801	F4	R960	N10
F802	F3	R961	N10
F803	I2	R963	G6
IC801	F5	R964	H7
IC901	L9	R965	G6
IC902	H10	R966	I7
J801	F5	R967	H6
J802	F3	R968	I6
J803	I2	RC901	I10
J804	J2	SW901	E10
J901	I7	SW902	C10
J902	I8	SW903	C10
JS901	A9	SW904	C10
JSW1	J9	SW905	B10
JSW1	H9	SW906	B10
JSW2	J9	SW907	B10
JSW2	H9	SW908	A10
JSW3	J9	SW909	B10
JSW3	H9	SW910	C9
JSW4	J9	SW911	C9
JSW4	H9	SW912	D9
L901	H8	SW913	C9
L902	N5	SW914	C9
LED901	D10	VR801	G3
MJ801	D3	VR802	H3
MJ802	D3	VR803	K2
P9501	B5	X901	J9
P9901	E10	ZD801	F4
P9902	F10	ZD802	F4
P9903	E10	ZD803	F3
P9904	F10	ZD804	F2
Q901	G7	ZD805	I2
Q902	I6	ZD806	I1
Q903	H7		
R801	F4		
R802	F5		
R803	F4		
R804	G4		
R805	G4		
R807	G4		
R808	H4		
R809	H4		
R811	H4		
R813	H3		
R814	F2		
R816	G3		
R817	I3		
R819	G3		
R821	K2		
R822	I5		
R903	C11		
R904	C11		
R905	C11		
R906	B11		

8. JACK CIRCUIT DIAGRAM

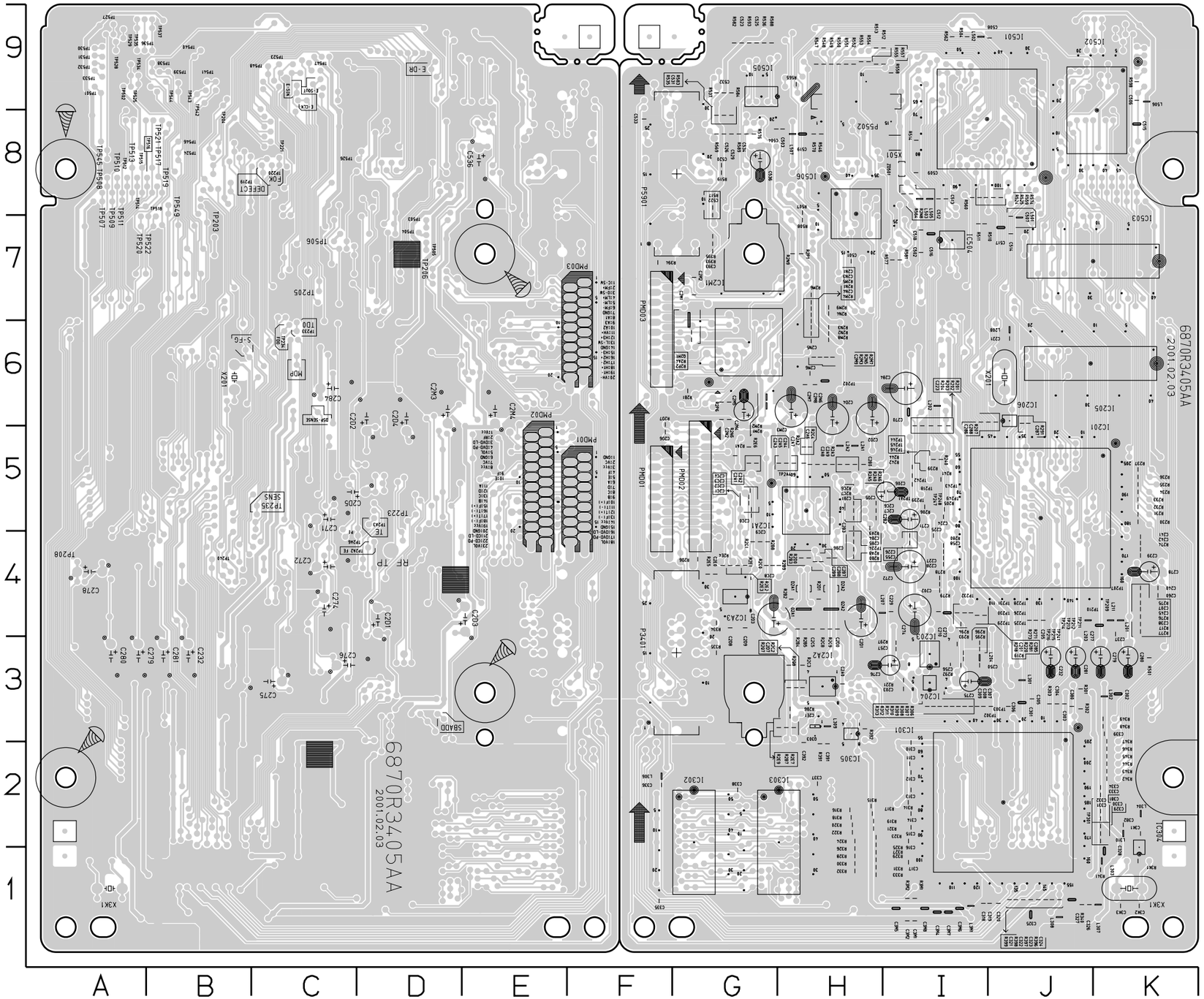


LOCATION GUIDE

BD601	L9	R601	C9
C602	M6	R604	I5
C603	I5	R605	C3
C605	K4	R606	C3
C606	C3	R607	C3
C607	D9	R608	D3
C608	C3	R609	D4
C609	L6	R610	F3
C611	K10	R611	F3
C612	J9	R612	G3
C613	B7	R613	G3
C614	B6	R614	H3
C615	C7	R615	H3
C650	M6	R616	J3
C651	Q2	R617	J4
C652	N6	R618	E5
C653	M6	R619	E5
C654	O6	R620	E5
C655	O6	R621	E5
C656	L4	R622	D9
C657	K4	R623	K9
C660	M3	R625	O2
C661	M5	R628	C8
C662	P3	R633	D6
C663	Q7	R638	E3
C664	D6	R639	F3
C665	M10	R640	C10
C666	P8	R651	N10
D607	K7	R652	P7
D602	K7	R653	J7
D603	D4	R654	J6
D604	D4	R655	J6
F602	D9	R656	J6
F603	C6	R657	K6
F604	C7	R658	M10
F605	F9	R660	K3
F606	G9	R661	J3
F607	G9	R662	M5
F608	C7	R663	N5
F611	I9	R664	M3
F612	I9	R665	N3
F613	J9	R666	O6
F614	J9	R667	P6
F615	J10	R668	L6
F616	K10	R672	G3
F617	N9	R673	F2
F618	O9	R674	G3
F622	P9	R675	F2
IC601	M4	R676	P9
J603	K10	R6C1	P9
J605	F9	R6C2	O9
J606	G9	R6C3	P9
J607	G9	R6C4	H10
J611	I9	R6C5	H10
J612	J9	R6C6	H10
J613	J9	R6M1	G5
J614	J8	R6M2	G5
J615	K10	R6M3	G5
J616	K10	R6M4	G5
J617	D8	R6N1	P9
J618	D8	R6N2	O9
J619	K10	R6N3	O9
J620	O9	R6N4	H10
J621	O9	R6N5	G10
J622	Q9	R6N6	H10
J630	I4	SW601	C10
J6A1	L3	SW602	D7
J6A2	L3	SW603	C11
J6A3	Q7	ZD603	D9
JK601	D10	ZD604	D9
JK602	J11	ZD605	F10
JK603	L11	ZD606	F10
L601	N6	ZD607	M6
L602	K4	ZD611	H9
Q601	J7	ZD612	H9
Q602	J5	ZD633	C9
Q603	J5	ZD634	C8
Q604	K5	ZD635	E10
Q605	J4	ZD636	E10
Q606	K3	ZD637	E9
Q607	D3	ZD638	E9
Q608	E4	ZD639	P8
Q609	F3	ZD640	P8
Q610	F4	ZD641	H9
Q611	G4	ZD642	H9
Q612	G4	ZD643	H9
Q613	H4	ZD644	H9
Q614	H4		
Q615	C4		
Q616	P6		
Q617	M6		
Q618	E3		
Q619	F3		

PRINTED CIRCUIT DIAGRAMS

1. MAIN P.C.BOARD



LOCATION GUIDE

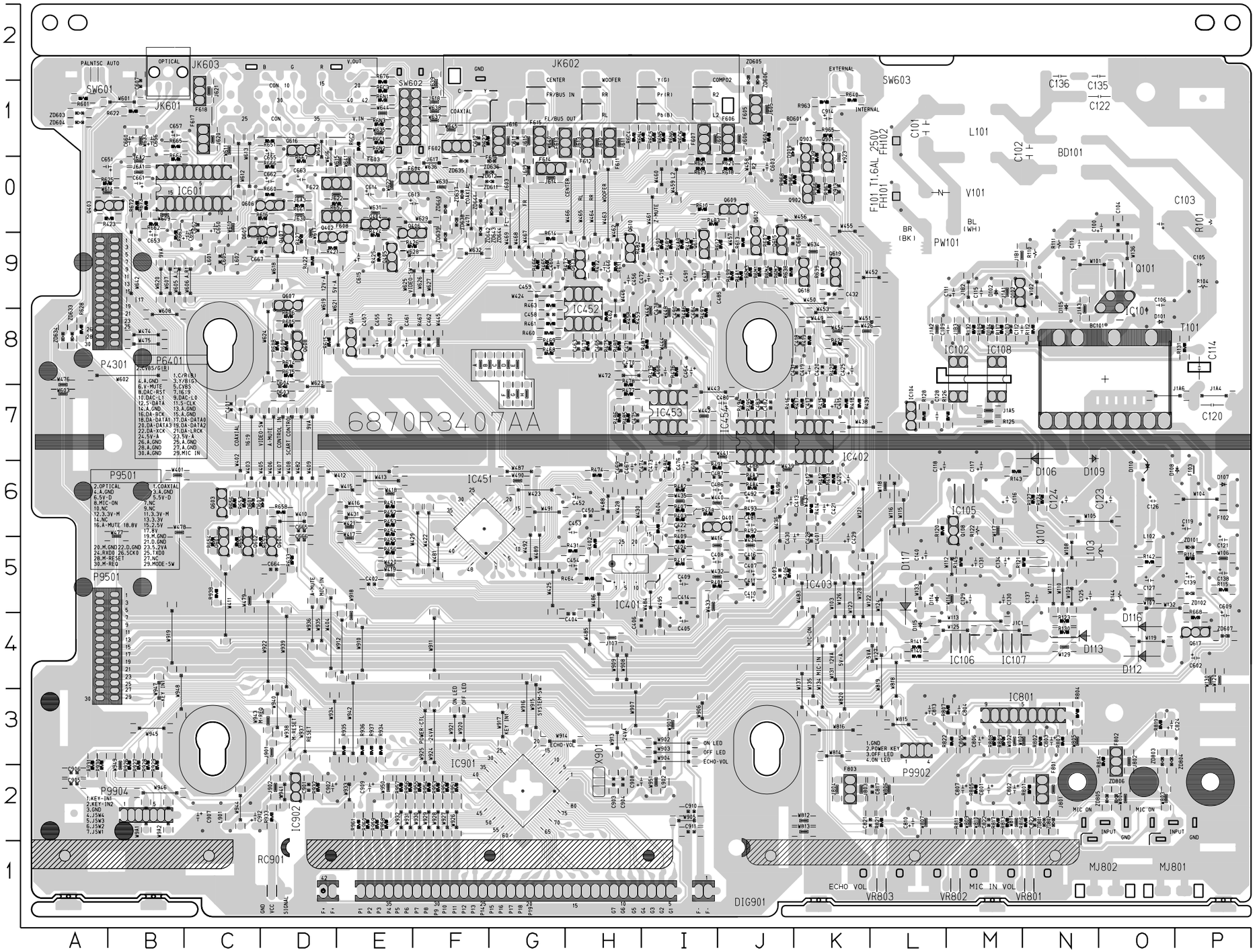
(BOTTOM SIDE)

TP203	B7	TP518	A8
TP204	B9	TP519	B8
TP205	C7	TP520	A7
TP206	D7	TP521	B8
TP208	A4	TP522	B7
TP219	C8	TP523	C9
TP220	C8	TP524	B8
TP221	C8	TP525	A9
TP223	D5	TP526	D8
TP233	C6	TP527	A9
TP234	C6	TP528	A9
TP235	C5	TP529	A9
TP240	B4	TP530	A9
TP2A2	D4	TP531	A9
TP2A3	D5	TP532	A9
TP2A6	D4	TP533	A9
TP501	A9	TP534	A9
TP502	A9	TP535	A9
TP503	D7	TP536	A9
TP504	D7	TP537	B9
TP505	D7	TP538	B9
TP506	C7	TP539	B9
TP507	A8	TP540	B9
TP508	A8	TP541	B9
TP509	A8	TP542	B9
TP510	A8	TP543	B9
TP511	A8	TP544	B9
TP512	A8	TP545	A8
TP513	A8	TP546	B8
TP514	A8	TP547	C9
TP515	A8	TP548	C9
TP516	B8	TP549	B8
TP517	B8		

(TOP SIDE)

C201	I4	C2B5	H4	C320	J1	C534	G8	R203	I5	R2C2	H3	R323	H2	R557	I9
C202	I4	C2B6	H4	C321	J1	C536	G8	R204	I5	R2C3	H3	R324	H2	R558	I9
C203	I3	C2B7	H4	C322	J1	D2A1	H4	R205	I5	R2C4	H5	R325	H2	R559	J8
C205	J4	C2B8	H4	C323	J1	D2A2	H4	R206	I5	R2C6	H5	R326	H1	R560	I8
C206	I5	C2B9	H4	C324	J1	IC201	J5	R207	J6	R2C7	H5	R327	H1	R562	I9
C207	K4	C2C0	G5	C325	J1	IC203	I3	R217	K4	R2C8	H4	R328	H1	R564	I8
C210	I4	C2C1	G5	C326	J1	IC204	I3	R218	I4	R2C9	H4	R329	H1	R565	H9
C221	J6	C2C2	G5	C327	J1	IC205	J6	R219	I4	R2D0	H4	R330	H1	R569	G8
C223	I5	C2C3	G5	C328	K1	IC206	J6	R220	I4	R2D1	H4	R331	H1	R570	H8
C224	I5	C2C4	G5	C329	K2	IC2A1	H5	R221	I3	R2D6	G4	R332	H1	R574	J8
C225	I4	C2C5	H4	C330	K2	IC2A2	H3	R230	K5	R2D7	F6	R333	H1	R576	G8
C226	I4	C2C6	H5	C331	K2	IC2A3	G4	R231	K5	R2E1	G4	R334	G4	R577	I7
C227	I4	C2C7	H5	C332	K2	IC2M1	G6	R232	K5	R2E2	G4	R335	G3	R581	I7
C228	I4	C2C8	G4	C333	K2	IC301	J2	R233	K5	R2E3	G4	R340	J1	R582	G9
C229	I4	C2C9	G4	C334	K2	IC302	G2	R234	K5	R2E4	G4	R341	K1	R583	G8
C232	J3	C2D0	H4	C335	F1	IC303	H2	R235	K5	R2E5	G4	R342	K2	R584	G9
C237	K4	C2D1	H4	C336	F2	IC304	K1	R236	K5	R2E6	G5	R343	K2	R588	G9
C238	K4	C2D2	H6	C337	H2	IC305	H3	R237	K5	R2E7	H3	R344	K2	R589	G8
C239	K4	C2D3	G4	C338	G2	IC501	I8	R239	I5	R2E9	H3	R345	K2	R593	G9
C240	K4	C2D4	H6	C339	K3	IC502	K8	R240	I5	R2M1	G6	R346	K2	R598	K9
C241	K4	C2D5	I5	C380	J3	IC503	K7	R241	I5	R2M2	G6	R347	K2	TP202	H6
C242	K4	C2D6	F5	C381	K2	IC504	I7	R242	I5	R2M3	H6	R348	K3	TP207	K4
C245	K4	C2D7	H3	C382	K2	IC505	G9	R244	I5	R2M4	H6	R349	K3	TP209	K4
C250	I3	C2D8	G4	C391	H2	IC506	H8	R271	J4	R2M5	H7	R391	H2	TP210	J4
C255	I4	C2D9	G4	C392	H2	L201	K4	R273	J4	R2M6	H7	R392	H3	TP211	J4
C256	I3	C2E0	G4	C393	G7	L202	I6	R274	K4	R2M7	H6	R393	G7	TP212	J4
C257	I3	C2E1	H3	C3K1	K2	L203	J4	R275	K4	R2M8	H6	R394	F7	TP213	J4
C258	I4	C2M1	G7	C3K2	K1	L204	I3	R276	K4	R2M9	H7	R395	G7	TP214	J4
C260	K4	C2M2	G7	C3K3	K1	L207	H4	R277	K4	R2N1	H6	R396	J1	TP215	J4
C270	I6	C2M3	H6	C3M1	I1	L208	J6	R278	I4	R2N2	H6	R397	J1	TP216	J4
C271	I5	C2M4	G6	C3M2	I1	L211	K4	R279	I4	R2N3	H6	R398	J1	TP218	I5
C272	I4	C2M5	G6	C3M4	I1	L2A1	H5	R280	I4	R2N4	H7	R399	J1	TP224	H4
C273	I4	C2M6	H6	C3M5	I1	L2A2	H5	R281	I4	R2N5	H6	R3K1	K1	TP225	J4
C274	I4	C2M7	H6	C3M6	I1	L301	J3	R291	J6	R2N6	G6	R3M1	I1	TP226	J4
C275	I3	C2M8	H6	C3M7	I1	L302	K3	R292	I3	R2N8	I8	R3M2	I1	TP228	J4
C276	I3	C2M9	H6	C3M8	I1	L303	K1	R293	I3	R2N9	H7	R501	K3	TP229	J4
C277	K4	C2N1	H7	C501	H7	L304	K2	R294	I3	R2P1	H7	R504	I9	TP230	J4
C278	K4	C2N2	G6	C502	I7	L306	F2	R295	I3	R2P2	G6	R507	H8	TP231	J4
C279	K3	C2N3	H7	C503	H8	L307	K1	R296	I3	R2P6	G6	R508	H7	TP232	I4
C280	K3	C2N4	H6	C504	G8	L308	J1	R297	I3	R2P7	H3	R510	I7	TP239	I5
C281	J3	C2N5	H6	C506	K9	L309	H3	R2A0	H5	R2Q8	H3	R511	I7	TP241	J4
C284	I6	C2N6	H6	C507	J7	L310	K2	R2A1	G5	R301	J3	R512	I9	TP242	I5
C285	I4	C301	J3	C508	J9	L3M1	I1	R2A2	H5	R302	J3	R513	H9	TP243	I5
C286	I6	C302	K3	C509	I8	L501	J7	R2A3	H5	R303	J3	R514	I8	TP244	I5
C287	J6	C303	J3	C512	I8	L502	I9	R2A4	G6	R306	I3	R517	G8	TP245	I5
C288	J6	C304	J3	C513	I8	L503	I8	R2A5	H5	R307	I3	R519	G8	TP246	I5
C2A0	H3	C305	J3	C514	J7	L505	I8	R2A6	H5	R308	I3	R524	I8	TP247	I5
C2A1	G5	C306	J3	C515	K8	L506	K9	R2A8	H4	R309	I3	R525	I8	TP248	I5
C2A2	G5	C307	J3	C516	I7	L507	H8	R2A9	H5	R310	I3	R535	G8	TP249	I5
C2A3	H5	C308	I3	C517	J7	P3401	G3	R2B0	H4	R311	I3	R536	G9	TP2A1	I5
C2A4	H5	C309	I3	C518	I7	P5502	H9	R2B1	G6	R312	I3	R537	G9	TP2A4	G5
C2A5	H5	C310	I2	C519	H8	P5901	G8	R2B2	H4	R313	I3	R546	H8	TP301	J2
C2A6	H5	C311	I2	C520	G8	PMD01	F5	R2B3	H4	R314	I2	R547	H9	TP302	J3
C2A7	H5	C312	I2	C522	G7	PMD02	G5	R2B4	H4	R315	H2	R548	H9	TP303	J3
C2A8	H5	C313	I2	C523	G9	PMD03	F7	R2B5	H4	R316	H2	R549	H9	X201	J6
C2A9	H5	C314	I2	C525	G9	Q2A1	H4	R2B6	H3	R317	H2	R550	H9	X3K1	K1
C2B0	H5	C315	I2	C526	G8	Q2A2	H4	R2B7	H3	R318	H2	R551	H9	X501	I8
C2B1	H5	C316	I2	C529	G8	Q2M1	G6	R2B8	G4	R319	H2	R552	H9	ZD501	I8
C2B2	H5	C317	I1	C531	G8	Q3D3	H3	R2B9	H4	R320	H2	R553	H9		
C2B3	H5	C318	I1	C532	G9	R201	I5	R2C0	G4	R321	H2	R554	H9		
C2B4	H4	C319	J1	C533	F8	R202	I5	R2C1	G4	R322	H2	R555	H9		

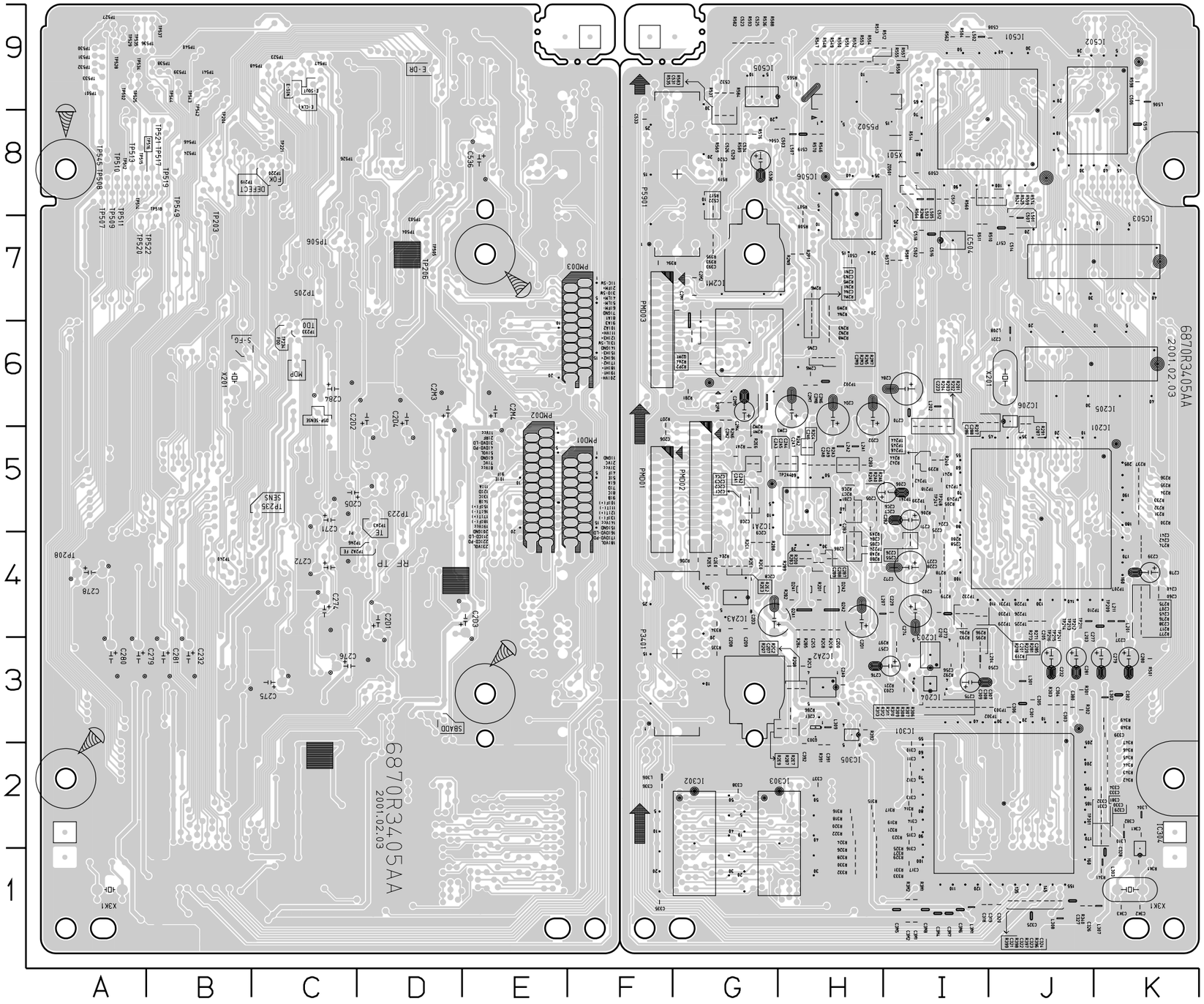
(Solder Side)



LOCATION GUIDE

BC101	O8	C464	I8	C914	K11	J616	G11	R125	M7	R495	J7
BD101	N11	C465	H8	D101	O8	J617	F10	R126	M7	R496	J6
BD601	J11	C466	H9	D102	M9	J618	F11	R127	N6	R497	I8
C100	O10	C467	H6	D103	M8	J619	G10	R128	L7	R499	J9
C101	L11	C468	I8	D104	M9	J620	C11	R130	N4	R4A1	J9
C102	N11	C469	H6	D105	N9	J621	C11	R131	P8	R4A2	I6
C103	O10	C470	H8	D106	N7	J622	E10	R132	M8	R4A3	J6
C104	O10	C471	H9	D107	P6	J630	D10	R140	L4	R4A4	J6
C105	P9	C472	I9	D108	P6	J6A1	B10	R141	L4	R4A6	I8
C106	O9	C473	I6	D109	N7	J6A2	B10	R142	O5	R4A8	I9
C109	M8	C474	I6	D110	O6	J6A3	D10	R143	M6	R4A9	I9
C110	N9	C475	H7	D112	O4	J801	N2	R144	O5	R601	A10
C111	M9	C476	I6	D113	N4	J802	O3	R145	M5	R604	J11
C112	M6	C478	I8	D114	L5	J803	K2	R401	I5	R605	D8
C114	P8	C479	I9	D115	L4	J804	K2	R402	H5	R606	D8
C115	M9	C480	J7	D116	O4	J901	D3	R403	I6	R607	J9
C116	M6	C481	J6	D117	L5	J902	D2	R404	I6	R608	D8
C117	M6	C482	J7	D601	O6	JK601	B11	R406	J5	R609	D8
C118	L6	C483	J7	D602	N6	JK602	H12	R407	I6	R610	I10
C119	P6	C484	I8	D603	D7	JK603	C12	R408	I6	R611	H9
C120	P7	C485	J9	D604	D7	L101	M11	R409	I5	R612	J9
C121	P5	C486	I6	D9B09	J10	L102	O5	R411	I5	R613	J9
C122	O11	C487	I6	D1G901	I1	L103	O5	R412	K6	R614	G9
C123	O6	C488	J6	F102	P6	L401	K5	R413	K6	R615	D8
C124	N6	C490	I8	F103	P6	L601	C9	R414	K6	R616	D10
C125	M6	C491	I9	F602	F11	L602	C9	R415	K7	R617	D9
C126	O6	C492	J6	F603	E10	L901	C2	R416	J7	R618	J10
C127	O5	C602	P4	F604	F10	L902	I2	R417	K7	R619	I10
C128	O5	C603	I10	F605	J11	MJ801	O1	R418	K7	R620	J10
C129	M5	C605	C9	F606	J11	MJ802	O1	R419	K8	R621	I10
C130	M5	C606	J9	F607	I11	P4301	A9	R420	K8	R622	B11
C131	M5	C607	I10	F608	E10	P9501	A4	R421	D9	R623	F10
C134	M5	C608	I6	F611	H11	P9902	L3	R422	D9	R625	A10
C135	O12	C609	P4	F612	H11	P9904	B2	R423	B10	R628	A8
C136	N12	C611	G11	F613	H11	PW101	L10	R424	E9	R633	D5
C137	N6	C612	I11	F614	H11	Q101	O9	R425	E9	R638	D5
C138	P5	C613	F10	F615	G11	Q102	M9	R426	E9	R639	K9
C139	P5	C614	E10	F616	G11	Q107	N5	R427	D9	R640	K11
C140	L5	C615	E9	F617	C11	Q108	M6	R428	K8	R651	O11
C401	C7	C650	C10	F618	C11	Q401	I6	R430	K7	R652	E10
C402	E5	C651	A10	F622	E10	Q402	D9	R431	H5	R653	C6
C403	J5	C652	C10	F801	N2	Q403	B10	R451	E6	R654	C5
C404	H6	C653	B9	F802	O3	Q404	E10	R452	E6	R655	C5
C405	I4	C654	C9	F803	K2	Q405	E9	R453	E6	R656	C6
C406	I4	C655	D11	FH101	L10	Q406	E9	R454	E6	R657	D5
C407	I5	C656	D11	FH102	L11	Q407	D9	R455	E5	R658	D5
C408	I5	C657	B11	IC101	O9	Q601	C5	R456	E5	R660	D10
C409	I5	C660	B11	IC102	M7	Q602	C5	R457	E8	R661	D10
C410	J5	C661	B11	IC104	L7	Q603	C6	R458	H8	R662	B9
C411	J5	C662	D10	IC105	M6	Q604	D5	R459	H8	R663	B9
C412	K6	C663	D10	IC106	M4	Q605	D10	R460	G8	R664	B10
C413	J6	C664	D5	IC107	M4	Q606	D10	R461	G8	R665	B11
C414	J5	C665	D6	IC108	M7	Q607	D9	R462	H8	R666	B11
C415	K7	C666	D5	IC402	K7	Q608	D8	R463	G9	R667	D10
C416	J5	C667	C9	IC403	K5	Q609	J10	R464	H5	R668	P4
C417	K7	C668	C9	IC452	H9	Q610	H9	R465	G9	R672	B10
C418	K8	C802	M2	IC453	I7	Q611	I9	R466	G9	R673	B10
C419	K8	C803	N3	IC454	J7	Q612	J9	R467	F8	R674	D8
C420	K8	C804	M3	IC601	B10	Q613	H9	R468	G8	R675	D8
C421	K8	C805	M3	IC801	N3	Q614	E8	R469	G8	R676	D8
C422	I6	C806	M3	IC901	G2	Q615	J9	R470	H8	R6C1	E11
C424	I5	C807	M2	IC902	D2	Q616	D11	R472	H9	R6C2	E11
C425	K6	C810	N3	J101	H4	Q617	D11	R473	H9	R6C3	E11
C426	K6	C813	L3	J1A1	M9	Q618	K9	R474	H6	R6C4	H11
C428	K5	C817	L2	J1A2	L8	Q619	K9	R475	H8	R6C5	I11
C429	K5	C821	L2	J1A3	N8	Q901	K10	R476	I8	R6C6	I11
C430	K5	C822	M2	J1A4	P7	Q902	K10	R477	H7	R6M1	J9
C431	K8	C823	N2	J1A5	M7	Q903	K10	R478	H7	R6M2	J9
C432	K9	C824	O3	J1A6	O7	R101	P10	R479	I8	R6M3	J9
C450	H6	C901	D2	J1B1	M9	R104	P9	R480	H8	R6M4	J9
C452	H6	C902	D2	J1B2	M9	R109	M8	R482	I9	R6N1	E11
C453	H6	C903	H2	J1B3	M8	R110	N9	R483	I10	R6N2	E11
C454	H5	C904	H2	J1C1	M4	R111	N9	R484	I6	R6N3	E11
C455	E8	C905	A2	J603	G10	R112	N8	R485	H7	R6N4	I11
C456	H9	C906	A2	J605	J11	R114	P5	R486	H7	R6N5	I11
C457	E8	C907	C2	J606	J11	R115	P5	R487	I8	R6N6	I11
C458	G8	C908	I2	J607	I11	R117	M6	R489	I9	R801	N2
C459	G9	C909	E2	J611	H11	R120	L6	R490	I9	R802	N3
C460	G9	C910	I2	J612	H11	R121	N5	R491	I6	R803	N3
C461	E8	C911	I2	J613	H11	R122	M5	R492	J6	R804	N3
C462	F8	C912	C2	J614	G10	R123	N4	R493	J6	R805	M2
C463	H8	C913	K10	J615	G11	R124	N6	R494	J7	R807	M3

ZD636	G10	ZD802	N2
ZD637	F10	ZD803	O3
ZD638	F10	ZD804	O3
ZD639	F9	ZD805	O2
ZD640	F10	ZD806	O2
ZD641	F10		
ZD642	F10		
ZD643	G10		
ZD644	G10		
ZD801	N2		



LOCATION GUIDE

(BOTTOM SIDE)

TP203	B7	TP518	A8
TP204	B9	TP519	B8
TP205	C7	TP520	A7
TP206	D7	TP521	B8
TP208	A4	TP522	B7
TP219	C8	TP523	C9
TP220	C8	TP524	B8
TP221	C8	TP525	A9
TP223	D5	TP526	D8
TP233	C6	TP527	A9
TP234	C6	TP528	A9
TP235	C5	TP529	A9
TP240	B4	TP530	A9
TP2A2	D4	TP531	A9
TP2A3	D5	TP532	A9
TP2A6	D4	TP533	A9
TP501	A9	TP534	A9
TP502	A9	TP535	A9
TP503	D7	TP536	A9
TP504	D7	TP537	B9
TP505	D7	TP538	B9
TP506	C7	TP539	B9
TP507	A8	TP540	B9
TP508	A8	TP541	B9
TP509	A8	TP542	B9
TP510	A8	TP543	B9
TP511	A8	TP544	B9
TP512	A8	TP545	A8
TP513	A8	TP546	B8
TP514	A8	TP547	C9
TP515	A8	TP548	C9
TP516	B8	TP549	B8
TP517	B8		

(TOP SIDE)

C201	I4	C2B5	H4	C320	J1	C534	G8	R203	I5	R2C2	H3	R323	H2	R557	I9
C202	I4	C2B6	H4	C321	J1	C536	G8	R204	I5	R2C3	H3	R324	H2	R558	I9
C203	I3	C2B7	H4	C322	J1	D2A1	H4	R205	I5	R2C4	H5	R325	H2	R559	J8
C205	J4	C2B8	H4	C323	J1	D2A2	H4	R206	I5	R2C5	H5	R326	H1	R560	I8
C206	I5	C2B9	H4	C324	J1	IC201	J5	R207	J6	R2C7	H5	R327	H1	R562	I9
C207	K4	C2C0	G5	C325	J1	IC203	I3	R217	K4	R2C8	H4	R328	H1	R564	I8
C210	I4	C2C1	G5	C326	J1	IC204	I3	R218	I4	R2C9	H4	R329	H1	R565	H9
C221	J6	C2C2	G5	C327	J1	IC205	J6	R219	I4	R2D0	H4	R330	H1	R569	G8
C223	I5	C2C3	G5	C328	K1	IC206	J6	R220	I4	R2D1	H4	R331	H1	R570	H8
C224	I5	C2C4	G5	C329	K2	IC2A1	H5	R221	I3	R2D6	G4	R332	H1	R574	J8
C225	I4	C2C5	H4	C330	K2	IC2A2	H3	R230	K5	R2D7	F6	R333	H1	R576	G8
C226	I4	C2C6	H5	C331	K2	IC2A3	G4	R231	K5	R2E1	G4	R334	G4	R577	I7
C227	I4	C2C7	H5	C332	K2	IC2M1	G6	R232	K5	R2E2	G4	R335	G3	R581	I7
C228	I4	C2C8	G4	C333	K2	IC301	J2	R233	K5	R2E3	G4	R340	J1	R582	G9
C229	I4	C2C9	G4	C334	K2	IC302	G2	R234	K5	R2E4	G4	R341	K1	R583	G8
C232	J3	C2D0	H4	C335	F1	IC303	H2	R235	K5	R2E5	G4	R342	K2	R584	G9
C237	K4	C2D1	H4	C336	F2	IC304	K1	R236	K5	R2E6	G5	R343	K2	R588	G9
C238	K4	C2D2	H6	C337	H2	IC305	H3	R237	K5	R2E7	H3	R344	K2	R589	G8
C239	K4	C2D3	G4	C338	G2	IC501	I8	R239	I5	R2E9	H3	R345	K2	R593	G9
C240	K4	C2D4	H6	C339	K3	IC502	K8	R240	I5	R2M1	G6	R346	K2	R598	K9
C241	K4	C2D5	I5	C380	J3	IC503	K7	R241	I5	R2M2	G6	R347	K2	TP202	H6
C242	K4	C2D6	F5	C381	K2	IC504	I7	R242	I5	R2M3	H6	R348	K3	TP207	K4
C245	K4	C2D7	H3	C382	K2	IC505	G9	R244	I5	R2M4	H6	R349	K3	TP209	K4
C250	I3	C2D8	G4	C391	H2	IC506	H8	R271	J4	R2M5	H7	R391	H2	TP210	J4
C255	I4	C2D9	G4	C392	H2	L201	K4	R273	J4	R2M6	H7	R392	H3	TP211	J4
C256	I3	C2E0	G4	C393	G7	L202	I6	R274	K4	R2M7	H6	R393	G7	TP212	J4
C257	I3	C2E1	H3	C3K1	K2	L203	J4	R275	K4	R2M8	H6	R394	F7	TP213	J4
C258	I4	C2M1	G7	C3K2	K1	L204	I3	R276	K4	R2M9	H7	R395	G7	TP214	J4
C260	K4	C2M2	G7	C3K3	K1	L207	H4	R277	K4	R2N1	H6	R396	J1	TP215	J4
C270	I6	C2M3	H6	C3M1	I1	L208	J6	R278	I4	R2N2	H6	R397	J1	TP216	J4
C271	I5	C2M4	G6	C3M2	I1	L211	K4	R279	I4	R2N3	H6	R398	J1	TP218	I5
C272	I4	C2M5	G6	C3M4	I1	L2A1	H5	R280	I4	R2N4	H7	R399	J1	TP224	H4
C273	I4	C2M6	H6	C3M5	I1	L2A2	H5	R281	I4	R2N5	H6	R3K1	K1	TP225	J4
C274	I4	C2M7	H6	C3M6	I1	L301	J3	R291	J6	R2N6	G6	R3M1	I1	TP226	J4
C275	I3	C2M8	H6	C3M7	I1	L302	K3	R292	I3	R2N8	I8	R3M2	I1	TP228	J4
C276	I3	C2M9	H6	C3M8	I1	L303	K1	R293	I3	R2N9	H7	R501	K3	TP229	J4
C277	K4	C2N1	H7	C501	H7	L304	K2	R294	I3	R2P1	H7	R504	I9	TP230	J4
C278	K4	C2N2	G6	C502	I7	L306	F2	R295	I3	R2P2	G6	R507	H8	TP231	J4
C279	K3	C2N3	H7	C503	H8	L307	K1	R296	I3	R2P6	G6	R508	H7	TP232	I4
C280	K3	C2N4	H6	C504	G8	L308	J1	R297	I3	R2P7	H3	R510	I7	TP239	I5
C281	J3	C2N5	H6	C506	K9	L309	H3	R2A0	H5	R2Q8	H3	R511	I7	TP241	J4
C284	I6	C2N6	H6	C507	J7	L310	K2	R2A1	G5	R301	J3	R512	I9	TP242	I5
C285	I4	C301	J3	C508	J9	L3M1	I1	R2A2	H5	R302	J3	R513	H9	TP243	I5
C286	I6	C302	K3	C509	I8	L501	J7	R2A3	H5	R303	J3	R514	I8	TP244	I5
C287	J6	C303	J3	C512	I8	L502	I9	R2A4	G6	R306	I3	R517	G8	TP245	I5
C288	J6	C304	J3	C513	I8	L503	I8	R2A5	H5	R307	I3	R519	G8	TP246	I5
C2A0	H3	C305	J3	C514	J7	L505	I8	R2A6	H5	R308	I3	R524	I8	TP247	I5
C2A1	G5	C306	J3	C515	K8	L506	K9	R2A8	H4	R309	I3	R525	I8	TP248	I5
C2A2	G5	C307	J3	C516	I7	L507	H8	R2A9	H5	R310	I3	R535	G8	TP249	I5
C2A3	H5	C308	I3	C517	J7	P3401	G3	R2B0	H4	R311	I3	R536	G9	TP2A1	I5
C2A4	H5	C309	I3	C518	I7	P5502	H9	R2B1	G6	R312	I3	R537	G9	TP2A4	G5
C2A5	H5	C310	I2	C519	H8	P5901	G8	R2B2	H4	R313	I3	R546	H8	TP301	J2
C2A6	H5	C311	I2	C520	G8	PMD01	F5	R2B3	H4	R314	I2	R547	H9	TP302	J3
C2A7	H5	C312	I2	C522	G7	PMD02	G5	R2B4	H4	R315	H2	R548	H9	TP303	J3
C2A8	H5	C313	I2	C523	G9	PMD03	F7	R2B5	H4	R316	H2	R549	H9	X201	J6
C2A9	H5	C314	I2	C525	G9	Q2A1	H4	R2B6	H3	R317	H2	R550	H9	X3K1	K1
C2B0	H5	C315	I2	C526	G8	Q2A2	H4	R2B7	H3	R318	H2	R551	H9	X501	I8
C2B1	H5	C316	I2	C529	G8	Q2M1	G6	R2B8	G4	R319	H2	R552	H9	ZD501	I8
C2B2	H5	C317	I1	C531	G8	Q303	H3	R2B9	H4	R320	H2	R553	H9		
C2B3	H5	C318	I1	C532	G9	R201	I5	R2C0	G4	R321	H2	R554	H9		
C2B4	H4	C319	J1	C533	F8	R202	I5	R2C1	G4	R322	H2	R555	H9		

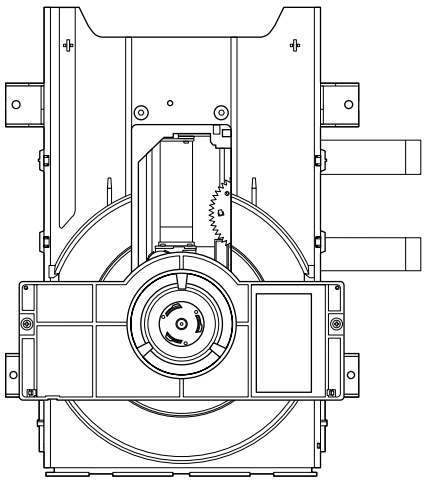
(Solder Side)

SECTION 4 MECHANISM

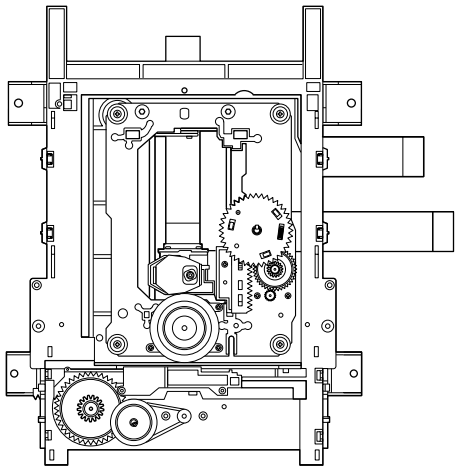
CONTENTS

DECK MECHANISM PARTS LOCATION

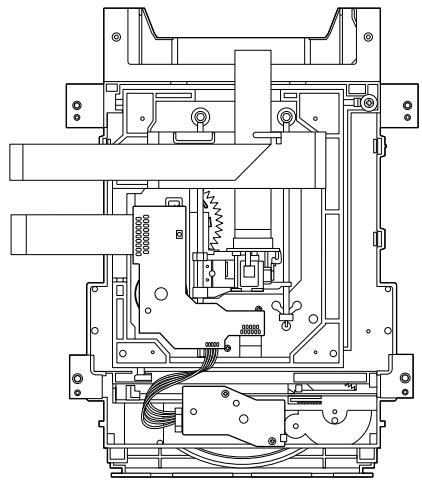
• Top View (With Tray)



• Top View (Without Tray)



• Bottom View



Procedure Starting No.		Parts	Fixing Type	Disassembly	Figure
	1	Holder Clamp	2 Screws, 2 Locking Tabs		4-1
1	2	Clamp Assembly Disc			4-1
1, 2	3	Plate Clamp			4-1
1, 2, 3	4	Magnet Clamp			4-1
1, 2, 3, 4	5	Clamp Upper			4-1
1	6	Tray Disc			4-2
1, 6	7	Base Assembly Sled			4-3
1, 2, 6	8	Gear Assembly Feed	4 Screws, 1 Connector 1 Locking Tabs		4-3
1, 2, 6, 8	9	Gear Middle			4-3
1, 2, 6, 8, 9	10	Gear Assembly Rack	1 Screw		4-3
1, 2, 7	11	Rubber Rear			4-3
1, 2, 7	12	Frame Assembly Up/Down	1 Screw	Bottom	4-4
1, 2	13	Belt Loading	1 Locking Tab		4-4
1, 2 ,13	14	Gear Pulley			4-4
1, 2, 13, 14	15	Gear Loading	1 Locking Tab		4-4
1, 2, 7, 12, 13, 14	16	Guide Up/Down			4-4
1, 2, 13	17	PWB Assembly Loading	1 Locking Tab 1 Hook 2Screw	Bottom	4-4
1, 2, 7, 12, 13, 14, 15, 16, 17	18	Base Main	2 Locking Tabs		4-4

Note

When reassembling, perform the procedure in reverse order.

The “Bottom” on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

DECK MECHANISM DISASSEMBLY

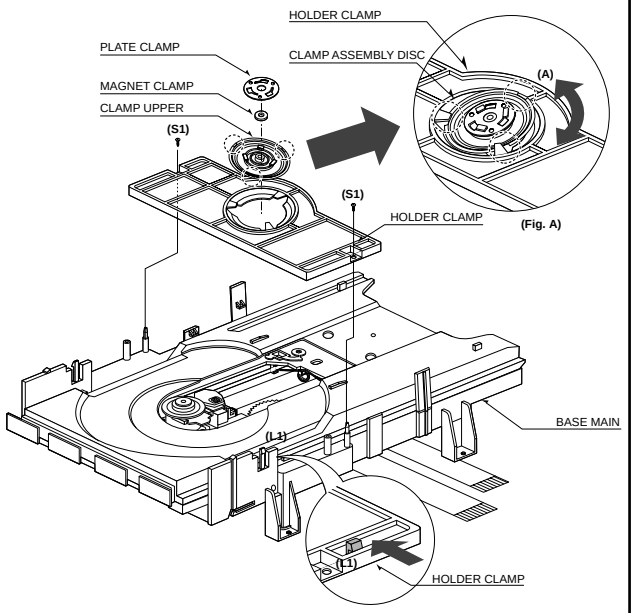


Fig. 4-1

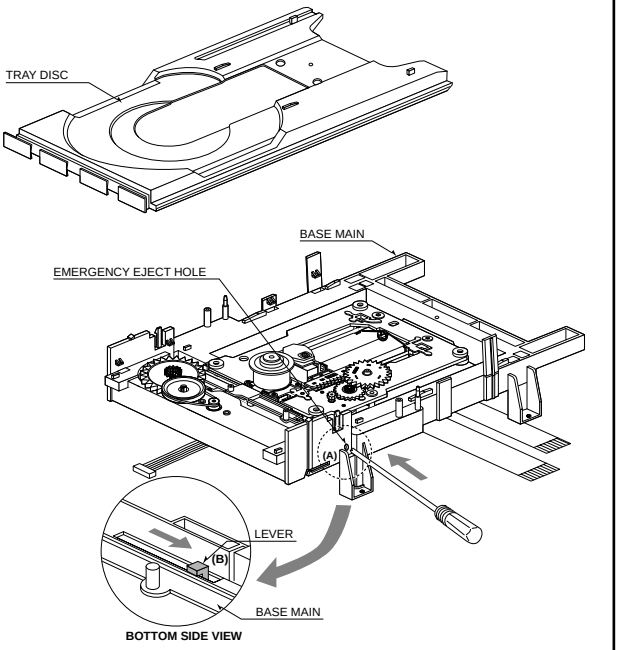


Fig. 4-2

1. Holder Clamp (Fig. 4-1)

1) Release 2 Screws(S1).
2) Unhook 2 Locking Tabs(L1).
3) Lift up the Holder Clamp and then separate it from the Base Main.

1-1. Clamp Assembly Disc

1) Place the Clamp Assembly Disc as Fig. (A)
2) Lift up the Clamp Assembly Disc in direction of arrow(A).
3) Separate the Clamp Assembly Disc from the Holder Clamp.

1-1-1. Plate Clamp

1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

1-1-2. Magnet Clamp

1-1-3. Clamp Upper

2. Tray Disc (Fig. 4-2)

1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
2) Pull the Tray Disc until it is separated from the Base Main completely.

DECK MECHANISM DISASSEMBLY

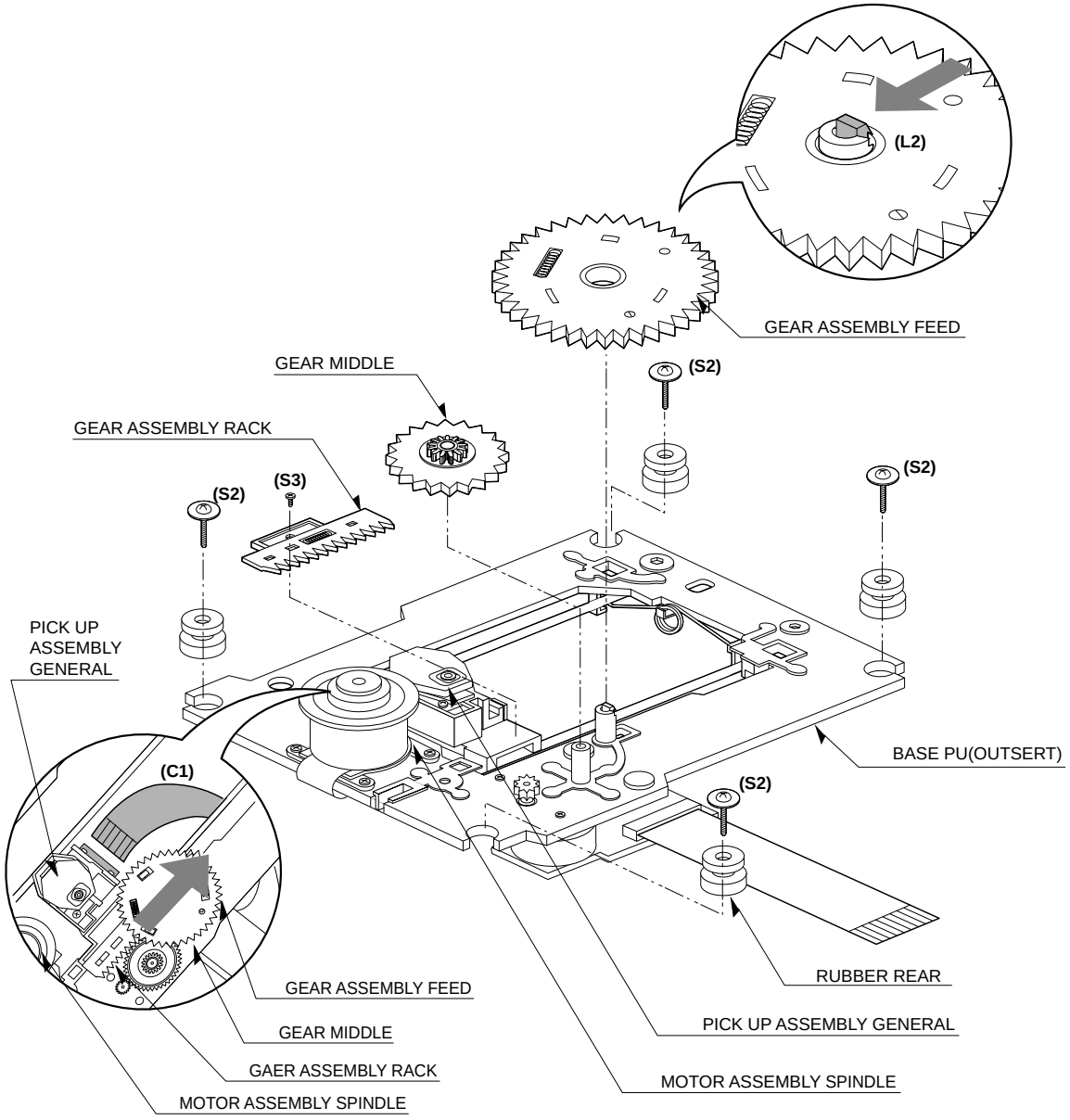


Fig. 4-3

3. Base Assembly Sled (Fig. 4-3)

1) Release 4 Screw(S2).
2) Disconnect the FFC Connector(C1)

3-1. Gear Assembly Feed

1) Unhook the Locking Tab(L2) in direction of arrow.

3-2. Gear Middle

3-3. Gear Assembly Rack

1) Release the Scerw(S3)

4. Rubber Rear (Fig. 4-3)

DECK MECHANISM DISASSEMBLY

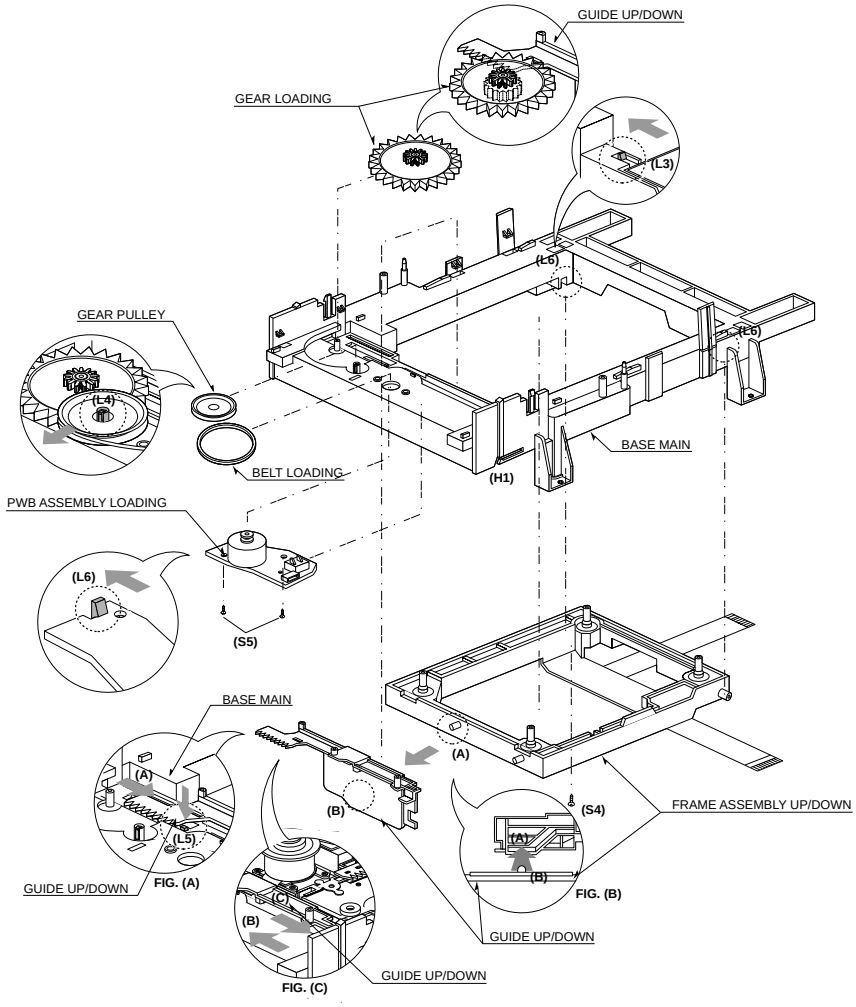


Fig. 4-4

5. Frame Assembly Up/Down

Note

Put the Base Main face down(Bottom Side)

1) Release the Screw(S4)
2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

Note

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

6. Belt Loading(Fig. 4-4)

Note

Put the Base Assembly Main on original position(Top Side)

7. Gear pulley (Fig. 4-4)

1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

8. Gear Loading (Fig. 4-4)

9. Guide Up/Down (Fig. 4-4)

1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

Note

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

10. PWB Assembly Loading

Note

Put the Base Main face down(Bottom Side)

1) Release 2 Screws(S5)
2) Unkool the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

11. Base Main(Fig. 4-4)

DECK MECHANISM ADJUSTMENT

1. Tools and Fixtures for SVC

• For SVC Program Down-Load

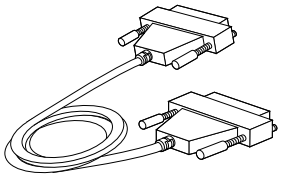


Fig.1. Printer Cable

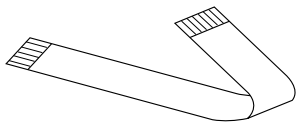


Fig.2. FFC Cable (15 pin)

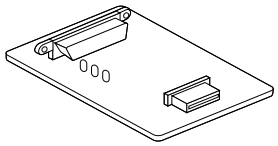


Fig.3. Jig Board

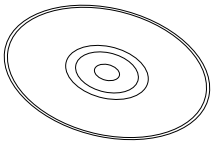


Fig.4. Deviation Disc (0.8mm)

• For T-Skew and R-Skew Adjustment

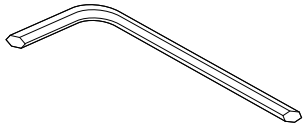


Fig.5. L-Wrench(3mm)

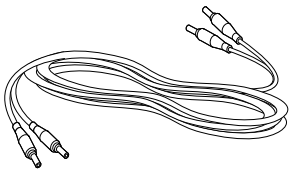


Fig.6. RCA Jack

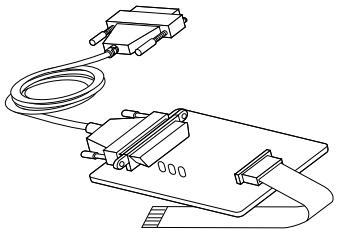


Fig.7. Connecting Method

2. Install Process

1. Connect Fig. 1, 2, 3 as Fig. 7.
2. Plug out the Power cord of DVD set.
3. Connect FFC Cable(Fig.2) to the Connector on DVD Set(Fig.8)
4. Connect Printer Cable(Fig.1) to the P.C.Printer Port (LPT1).
5. Plug in the DVD Power cord.
6. Press the Menu key on Remocon.
7. Confirm No.1 LED(RED Color) of Jig board is ON. (Fig.9)
8. Perform The S/W for Down-load at P.C.
9. Open the Program File for Adjusting(Fig.10)
10. Click the Down-load Icon and perform Program Down-load.
11. Displayed remaining time.
12. Confirm LED No.1(RED) and No.2(GREEN) is ON.
13. Plug out the DVD Set Power cord.
14. Disconnect the FFC Cable.

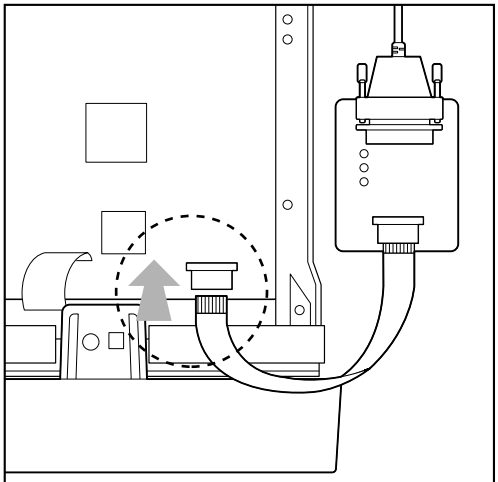


Fig.8. FFC Cable Connecting

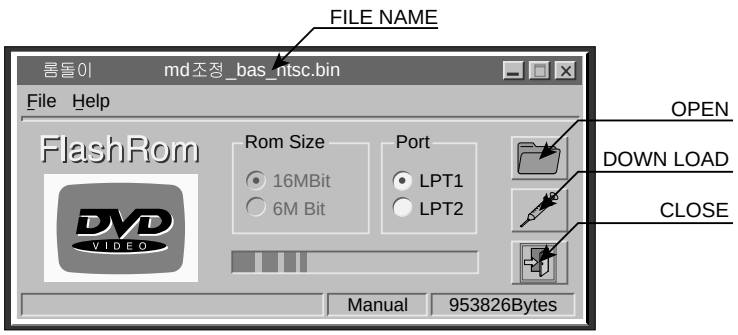


Fig.10. Adjusting Program File Open

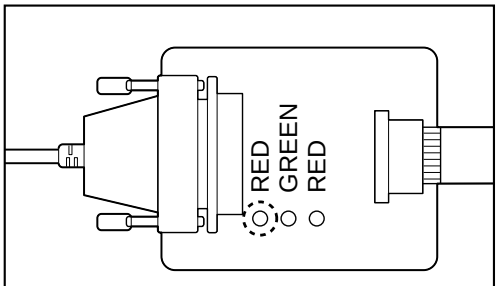


Fig.9. Jig Board LED Condition

DECK MECHANISM ADJUSTMENT

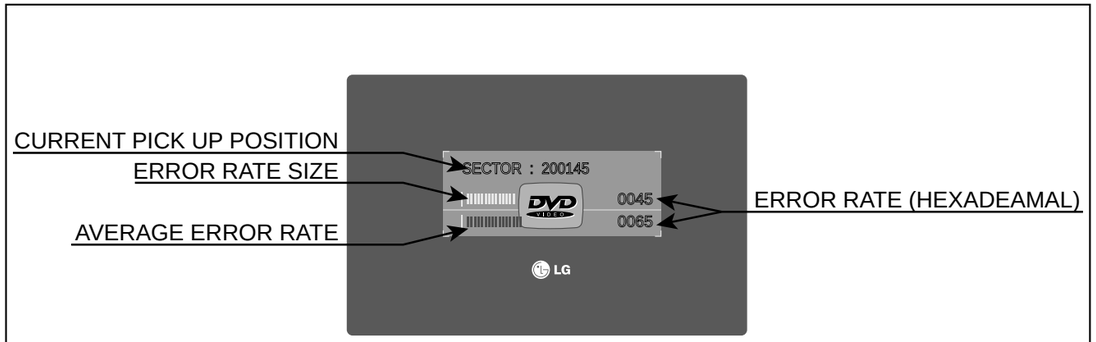


Fig.11. Adjusting Screen Display

3. Adjustment Procedure

1. Insert Disc(Only Open/Close Key Pressing)
2. Wait Until the Sector Display is about 200,000 (Fig.11)
3. Adjust R-Skew adjusting Point until the Error rate has Minimum rate with L-wrench (3mm).
4. Adjust T-Skew Adjusting Point until the Error rate has Minimum rate.
5. Repeat No. 3, 4 adjusting procedure until the Error rate have Minimum rate.
6. Error rate; SVC-3561 Disc=below 30 and TDV-533 Disc=below 100. If not, Please confirm Play ability on screen.

You can watch the screen when pressing the Stop key after the Adjusting is finished, Then perform Play and Scan/Skip operation at Chapter1 and Chapter16 and confirm screen condition, normal or abnormal.

• Please obtain these software for Adjusting through our Global Cyber Service Center(GCSC).

• The location is http://biz.lgservice.com
  & Web Site for End users
  & Software updates
  & Product : DVD Player
  & Search.

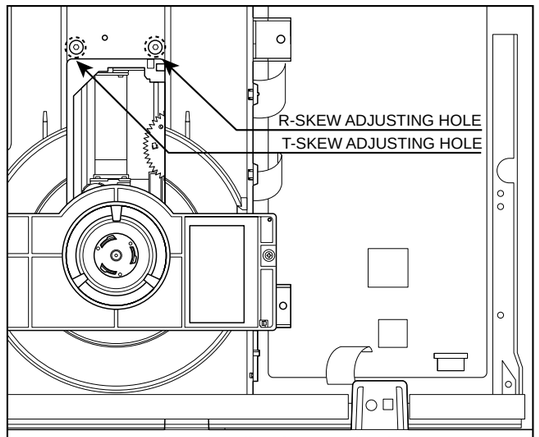
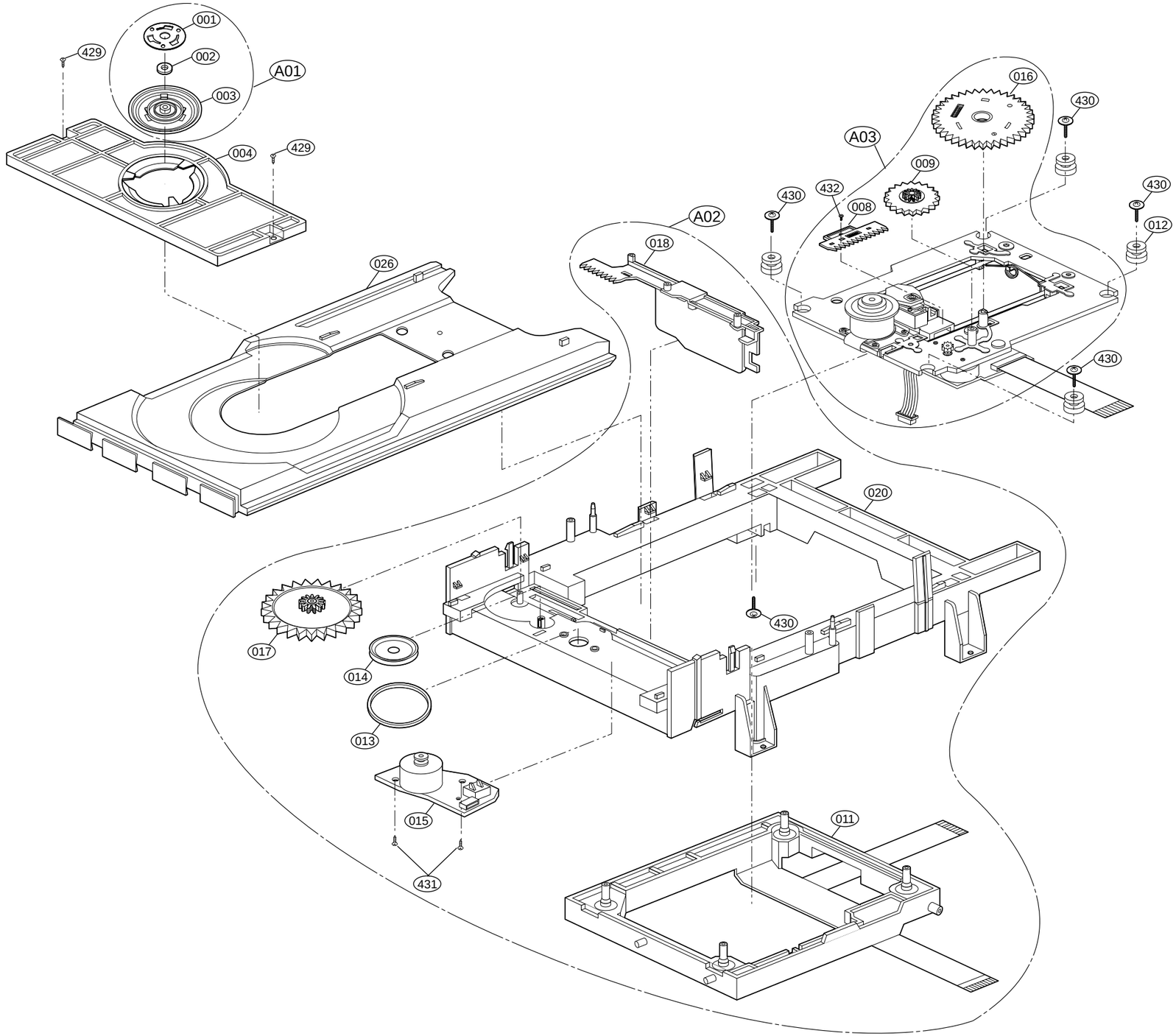


Fig.12. Adjusting Method

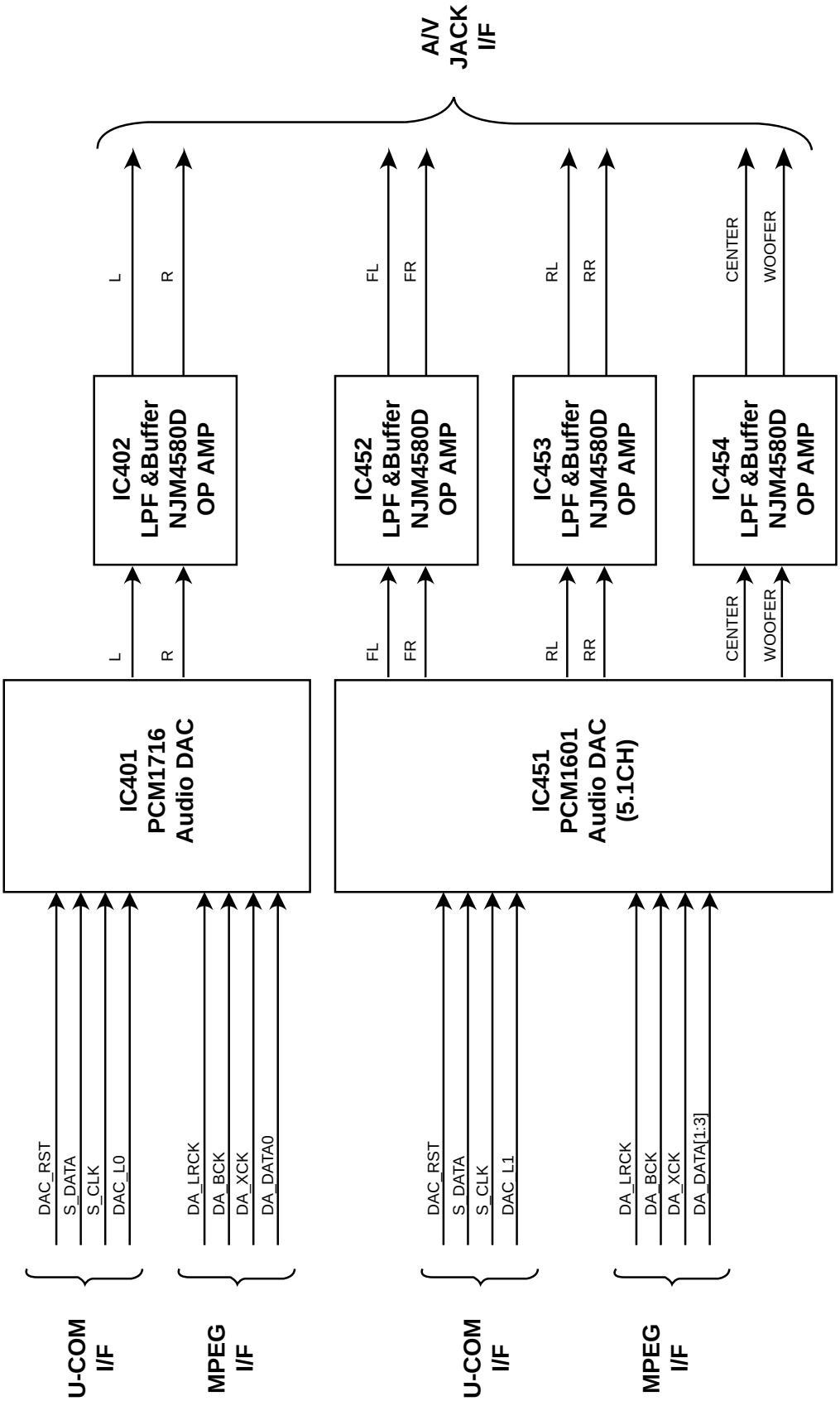
M E M O

EXPLODED VIEWS

1. Deck Mechanism Exploded View



4. Audio Block Diagram



7. DIGITRON(TIMER) & KEY CIRCUIT DIAGRAM

SW509 is defective.
Direction Key is defect.

JS901 is defective.
SCAN +/- will not operate.

IC902 is defective.
Reset Error.

RC901 is defective.
R/C Error.

DIG901 is defective.
FLD is distorted.

KEY BOARD ASSY

POWER LED BOARD ASSY

IC901 UPD78032

MIC

'01.02.12 R10675A
D'SCHEMATIC FRONT U-COM
DVD4000'S

LOCATION GUIDE

C801	F5	R907	B11
C802	F4	R912	C11
C803	G4	R921	E11
C804	H4	R922	C9
C805	I4	R923	C9
C806	H4	R924	D9
C807	H4	R925	D9
C810	I3	R926	F8
C813	I4	R927	G8
C817	I2	R928	G8
C821	K1	R929	G8
C822	H3	R930	G8
C823	G3	R931	H8
C824	G3	R932	I9
C901	H9	R933	I8
C902	I9	R934	L7
C903	I9	R935	L7
C904	J9	R936	M7
C905	G8	R937	M8
C906	H8	R938	J8
C907	I8	R939	G7
C908	N4	R941	B11
C909	N4	R951	M10
C910	O5	R952	M10
C911	O5	R953	N10
C912	I9	R954	N10
C913	H6	R955	N10
C914	H6	R956	N10
D.GND	P4	R957	N10
D909	H7	R958	N10
DIG901	P11	R959	N10
F801	F4	R960	N10
F802	F3	R961	N10
F803	I2	R963	G6
IC801	F5	R964	H7
IC901	L9	R965	G6
IC902	H10	R966	I7
J801	F5	R967	H6
J802	F3	R968	I6
J803	I2	RC901	I10
J804	J2	SW901	E10
J901	I7	SW902	C10
J902	I8	SW903	C10
JS901	A9	SW904	C10
JSW1	J9	SW905	B10
JSW1	H9	SW906	B10
JSW2	J9	SW907	B10
JSW2	H9	SW908	A10
JSW3	J9	SW909	B10
JSW3	H9	SW910	C9
JSW4	J9	SW911	C9
JSW4	H9	SW912	D9
L901	H8	SW913	C9
L902	N5	SW914	C9
LED901	D10	VR801	G3
MJ801	D3	VR802	H3
MJ802	D3	VR803	K2
P9501	B5	X901	J9
P9901	E10	ZD801	F4
P9902	F10	ZD802	F4
P9903	E10	ZD803	F3
P9904	F10	ZD804	F2
Q901	G7	ZD805	I2
Q902	I6	ZD806	I1
Q903	H7		
R801	F4		
R802	F5		
R803	F4		
R804	G4		
R805	G4		
R807	G4		
R808	H4		
R809	H4		
R811	H4		
R813	H3		
R814	F2		
R816	G3		
R817	I3		
R819	G3		
R821	K2		
R822	I5		
R903	C11		
R904	C11		
R905	C11		
R906	B11		

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   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistor

5. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

6. Check that replaced wires do not contact sharp edged or pointed parts.

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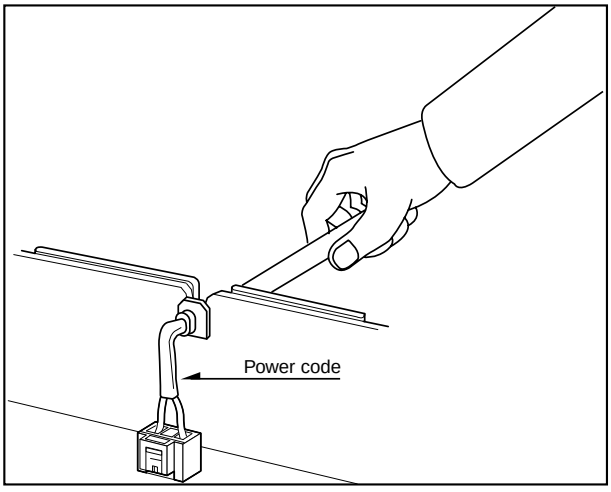
   2) During the test, the cord shall not be displaced by more than 2mm

8. Also check areas surrounding repaired locations.



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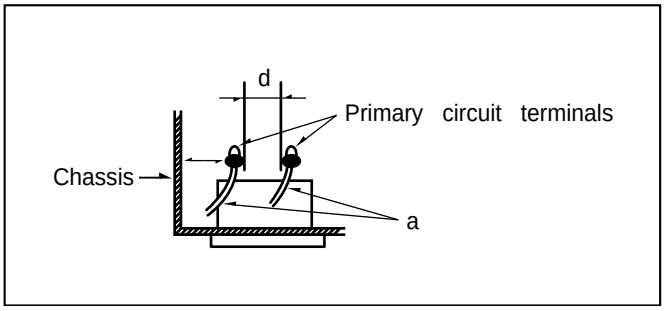

Fig. 2

Table 1 : Ratings for selected areas

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* Class II model only.

Note. This table is unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

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Measuring Method: (Power ON)
Insert load Z between B(earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure and following table.

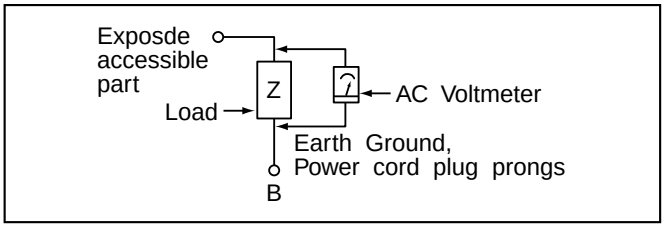

Fig. 3

Table 2:Leakage current ratings for selected areas.

AC Line Voltage	Region	Load Z	Leakage Current(i)	Earth Ground (B) to :
100 to 130 V	Europe	2kΩ	i E 0.7m A peak i E 2m A DC	Antenna earth terminals
200 to 240 V	Australia	50kΩ	i E 0.7m A peak i E 2m A DC	Other terminals

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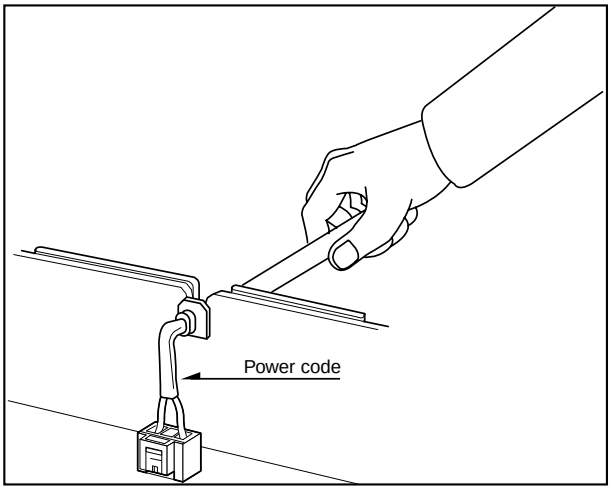
8. Also check areas surrounding repaired locations.



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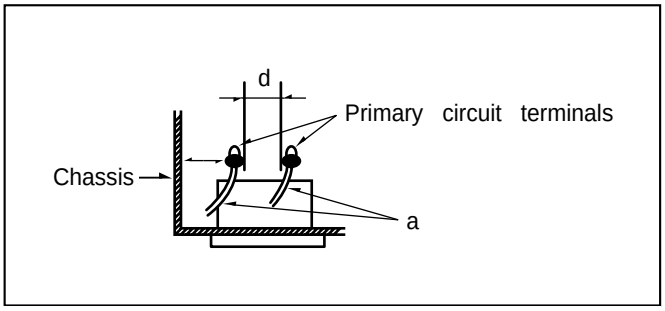

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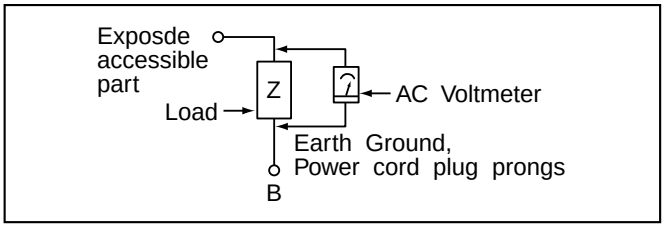

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AC Line Voltage	Region	Load Z	Leakage Current(i)	Earth Ground (B) to :
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Note. This table is for IEC member only. Be sure to confirm the precise values for your particular country and locality.

DISASSEMBLY

CAUTION BEFORE STARTING SERVICING

Electronic parts are susceptible to static electricity and may easily damaged, so do not forget to take a proper grounding treatment as required.

Many screws are used inside the unit. To prevent missing, dropping, etc. of the screws, always use a magnetized screw driver in servicing. Several kinds of screws are used and some of them need special cautions. That is, take care of the tapping screws securing molded patrs and fine pitch screws used to secure metal parts. If they are used improperly, the screw holes will be easily damaged and the parts can not be fixed.

CABINET DISASSEMBLY

1. Top Case

1. Release 7 screws (A). (See Fig. 2-1)
2. Lift the top case with holding the back of it, and remove it in the direction of the arrow

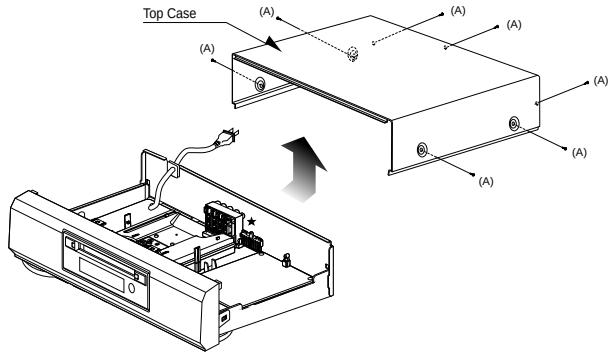


Fig. 2-1

2. Tray Door

1. Eject the disc tray.
2. Lift up the tray door in the direction of the arrow.

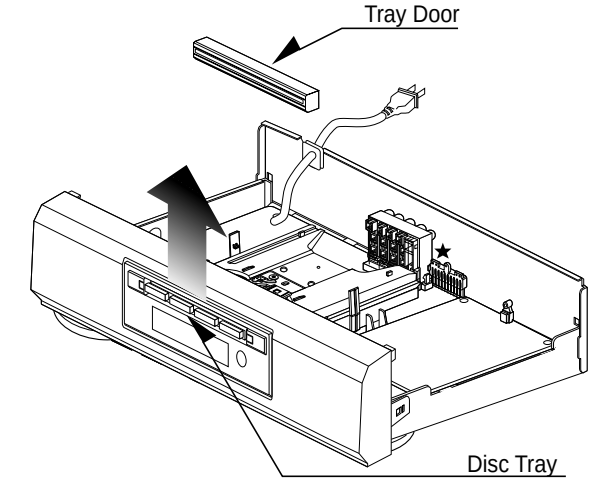


Fig. 2-2

3. Front Panel

1. Eject the disc tray. (See Fig. 2-2)
2. Remove the tray door. (See Fig. 2-2)
3. Release 2 screws (B).
4. Pull the front panel toward you while pressing 7 stoppers to disengage, and remove the front panel. (See Fig. 2-3)

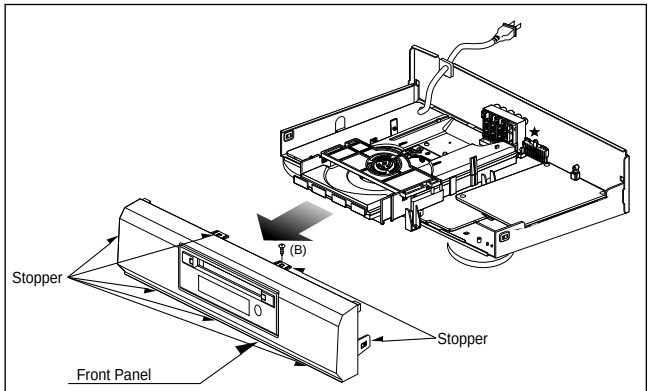


Fig. 2-3

CIRCUIT BOARD DISASSEMBLY

Note: Before removing the main circuit board, be sure to shortcircuit the laserdiode output land. After replacing the main circuit board, open the land after inserting the flexible connector. (Refer to Mechanism Disassembly)

1. Disassembling of Main Circuit Board and Interface Board

1. Remove the top case.(See Fig. 2-1)
2. Remove 12 screw (C).
3. Remove the deck from Main Circuit Board.
4. Remove Main Circuit Board from Interface Board.
5. Remove 2 screw (D).
6. Remove Interface Board from the chassis.

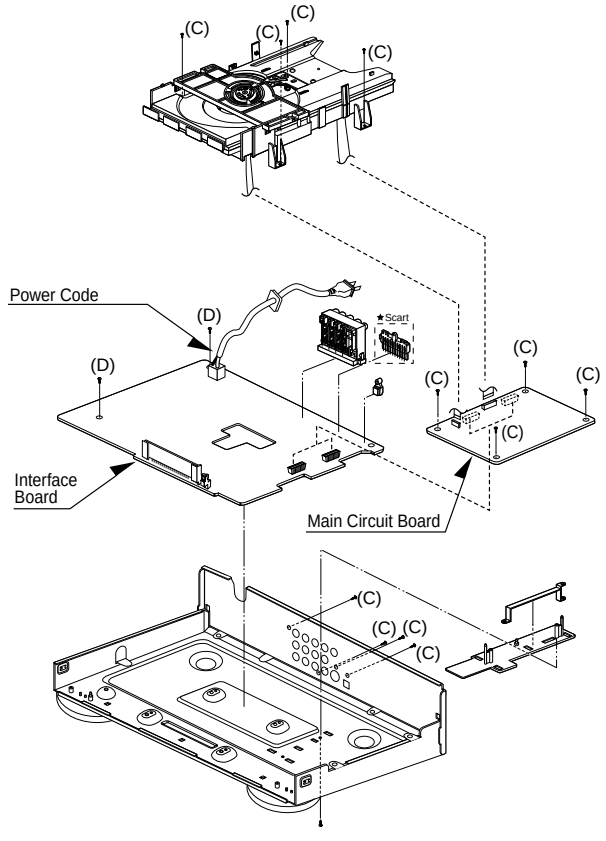


Fig. 2-4

2. Digitron and Key Circuit Board

1. Remove the front panel.(See Fig. 2-3)
2. Release 4 screws (E), and remove the digitron circuit board.

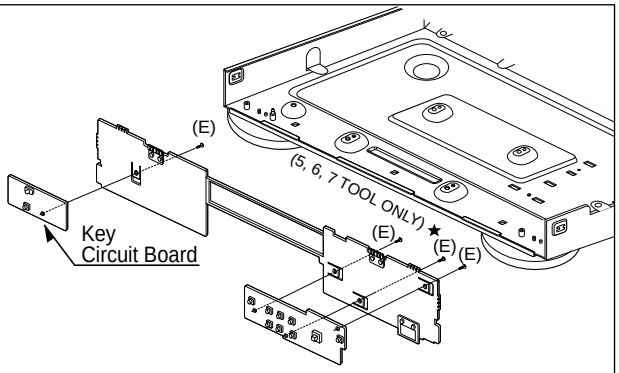
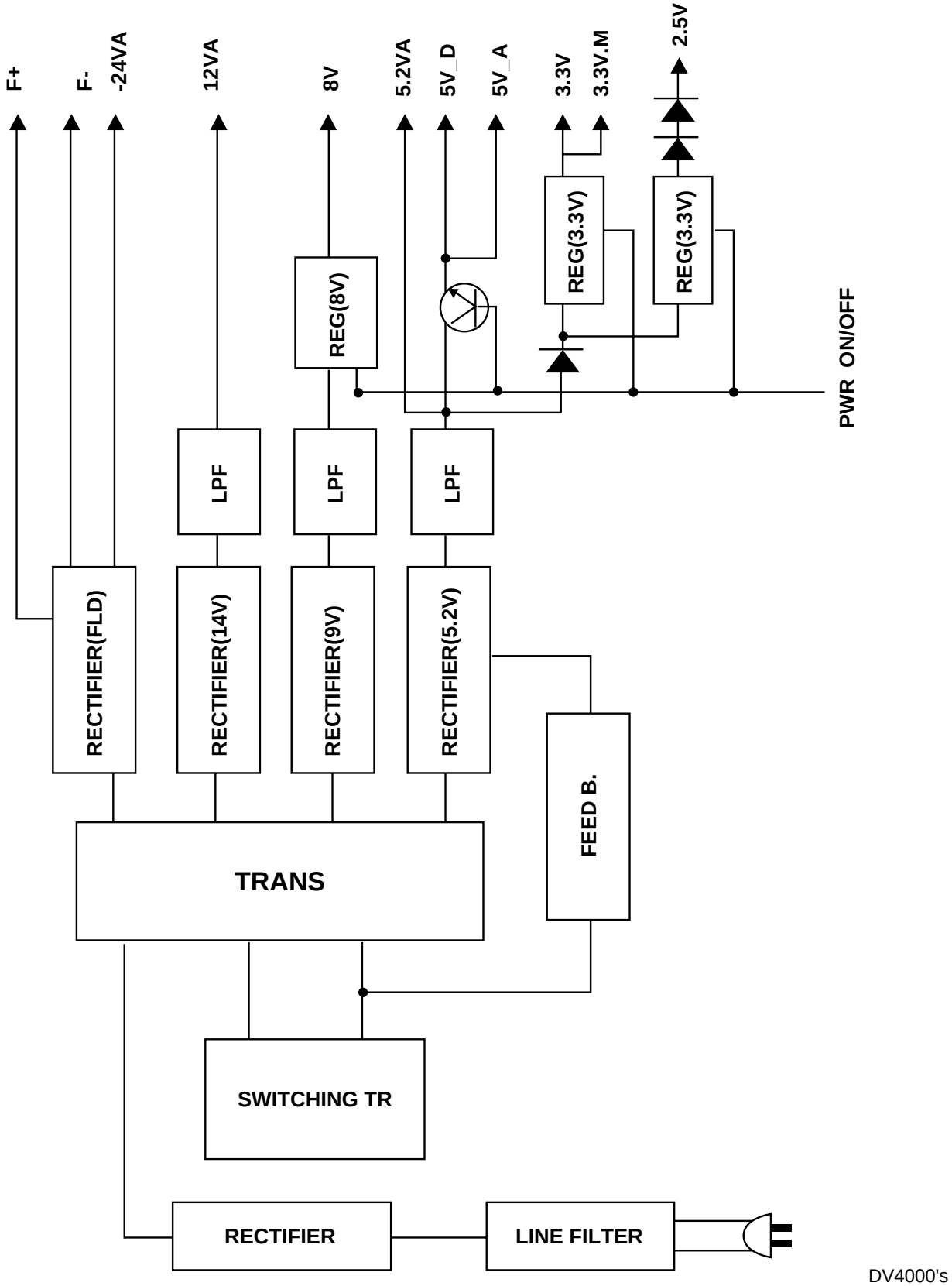


Fig. 2-5

2. Power(SMPS) Block Diagram



DV4000's

CONTENTS

SECTION 1

SUMMARY

CONTENTS

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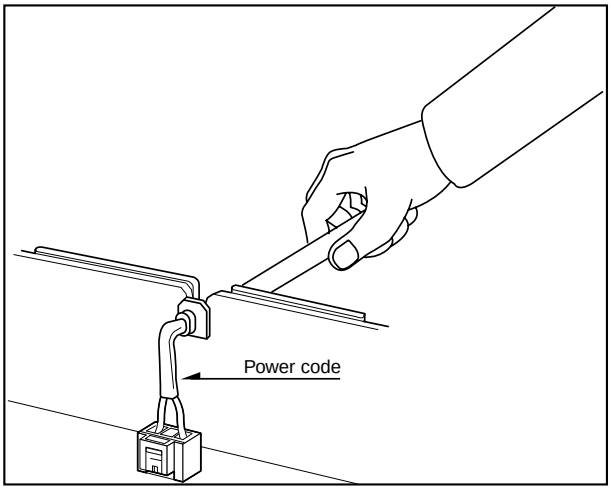

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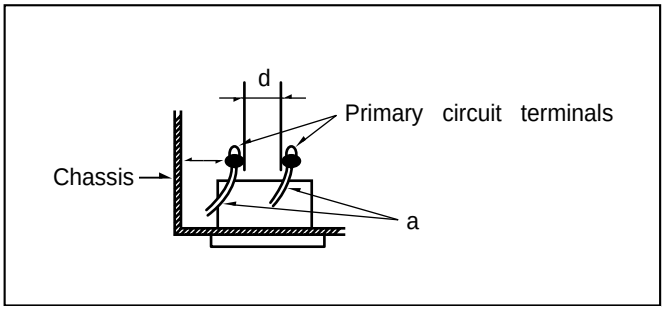

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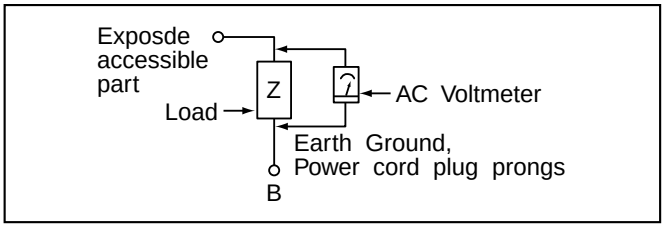

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SPECIFICATIONS

DVD VIDEO PLAYER

Power supply	AC 100~240V, 50/60Hz
Power consumtion	16W
Mass	3.0kg(6.6lbs)
External dimensions	430 x 88 x 247 (W x H x D)
Signal system	PAL 625/50, NTSC 525/60
Laser	Semiconductor laser, wavelength 650nm
Frequency range (digital audio)	4Hz to 20kHz
Signal-to-noise ratio (digital audio)	More than 100dB (EIAJ)
Audio dynamic range (digital audio)	More than 95dB (EIAJ)
Harmonic distortion(digital audio)	0.008%
Wow and flutter	Below measurable level (less than +0.001%(W.PEAK)) (EIAJ)
Operations	Temperature : 5˚C(41˚F) to 35˚C(95˚F), Operation status : Horizontal

OUTPUTS

Video outputs	1.0V(p-p), 75Ω, negative sync., RCA jack x 1/SCART(TO TV)
S video outputs	(Y)1.0V(p-p), 75Ω, negative sync.,Mini DIN 4-pin x 1 (C)0.286V(p-p), 75Ω
Audio output(digital audio)	0.5V(p-p), 75Ω, RCA jack X 1
Audio output(optical audio)	Optical connector x 1
Audio output(analog audio)	2.0Vrms (1kHz, 0dB), 330Ω, RCA jack (L, R) x 1/ SCART(TO TV)

*Designs and specifications are subject to change without notice.
*Weight and dimensions shown are approximate.

SECTION 2

CABINET & MAIN CHASSIS

CONTENTS

DISASSEMBLY

CAUTION BEFORE STARTING SERVICING

Electronic parts are susceptible to static electricity and may easily damaged, so do not forget to take a proper grounding treatment as required.

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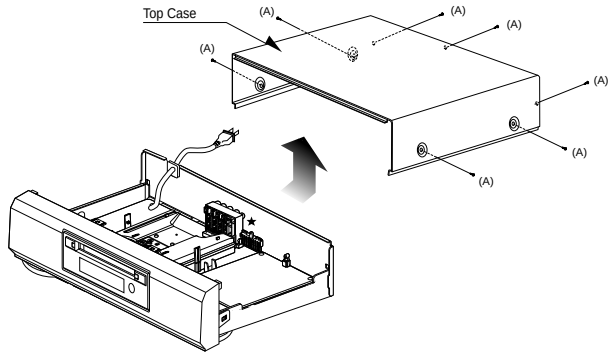


Fig. 2-1

2. Tray Door

1. Eject the disc tray.
2. Lift up the tray door in the direction of the arrow.

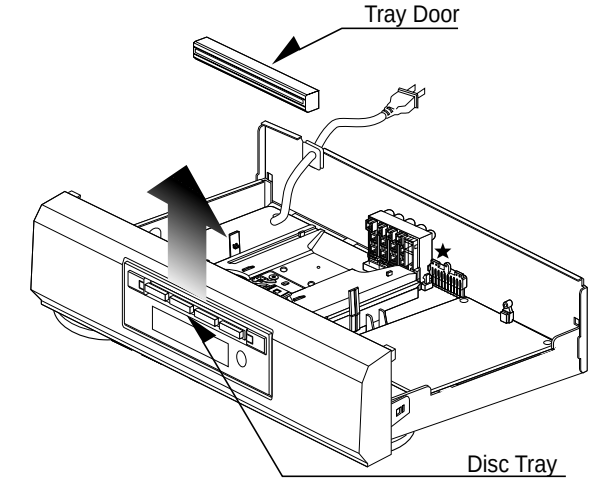


Fig. 2-2

3. Front Panel

1. Eject the disc tray. (See Fig. 2-2)
2. Remove the tray door. (See Fig. 2-2)
3. Release 2 screws (B).
4. Pull the front panel toward you while pressing 7 stoppers to disengage, and remove the front panel. (See Fig. 2-3)

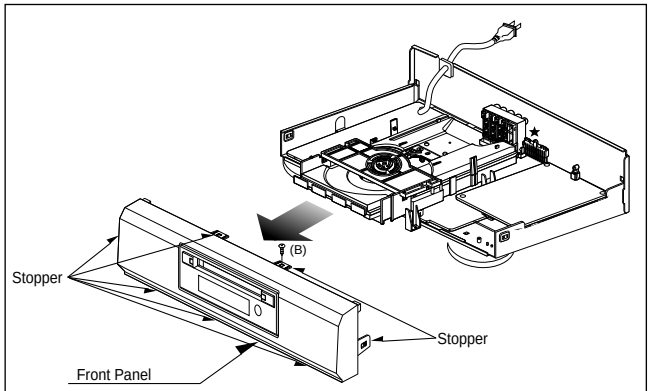


Fig. 2-3

CIRCUIT BOARD DISASSEMBLY

Note: Before removing the main circuit board, be sure to shortcircuit the laserdiode output land. After replacing the main circuit board, open the land after inserting the flexible connector. (Refer to Mechanism Disassembly)

1. Disassembling of Main Circuit Board and Interface Board

1. Remove the top case.(See Fig. 2-1)
2. Remove 12 screw (C).
3. Remove the deck from Main Circuit Board.
4. Remove Main Circuit Board from Interface Board.
5. Remove 2 screw (D).
6. Remove Interface Board from the chassis.

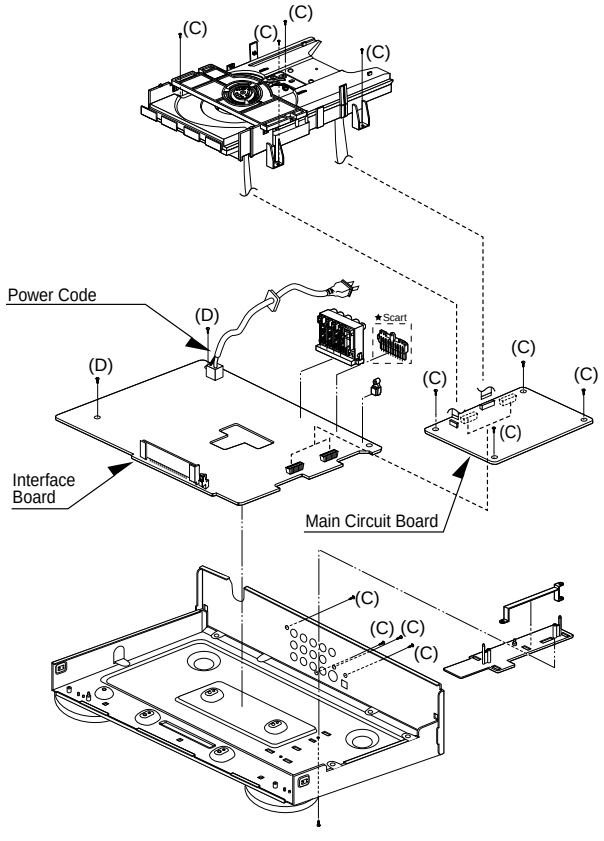


Fig. 2-4

2. Digitron and Key Circuit Board

1. Remove the front panel.(See Fig. 2-3)
2. Release 4 screws (E), and remove the digitron circuit board.

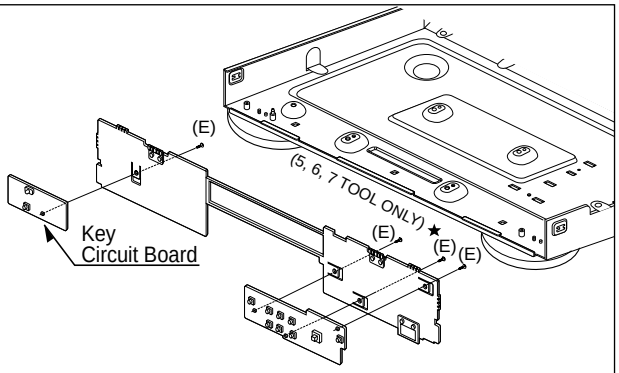
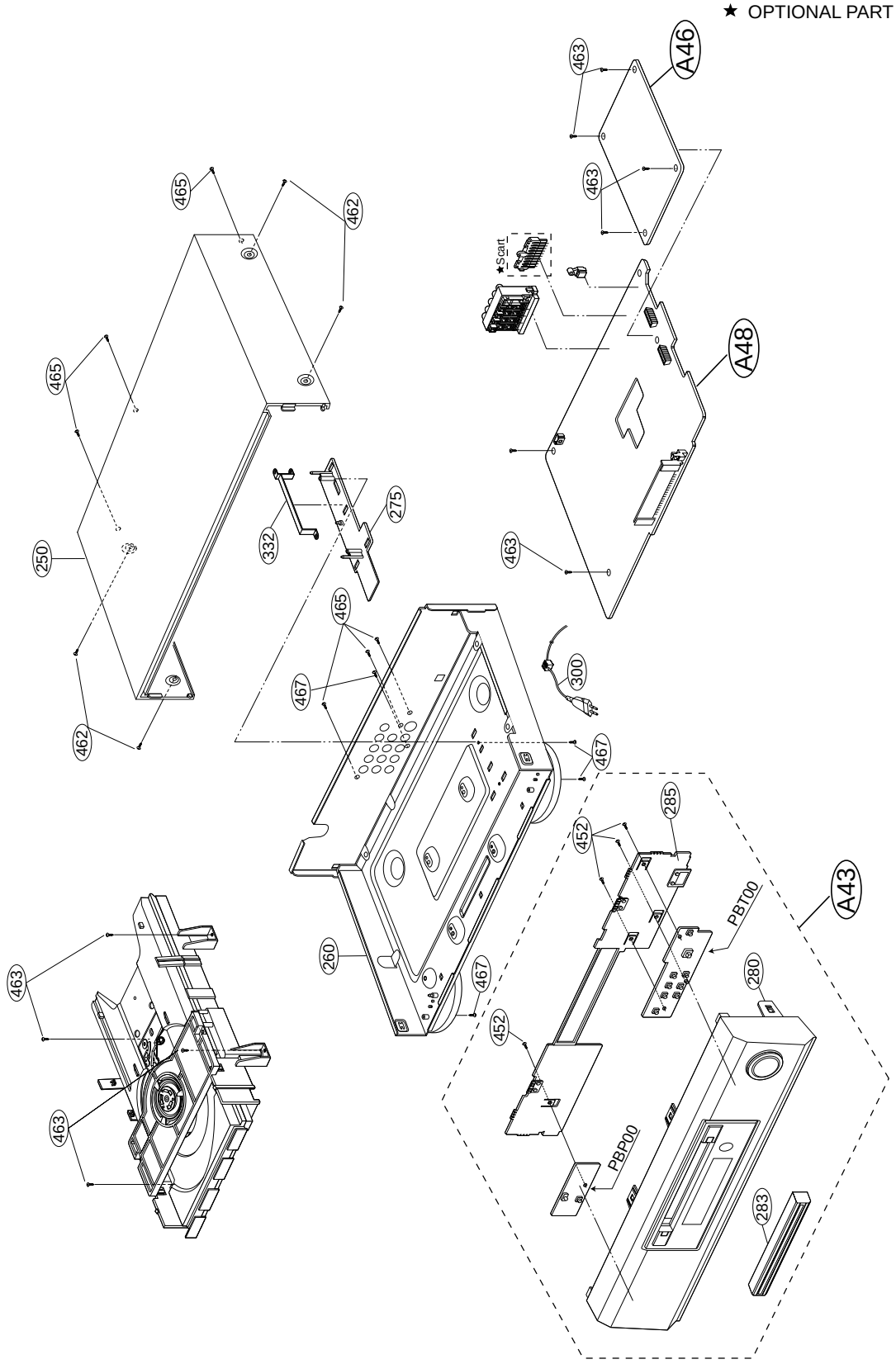


Fig. 2-5

EXPLODED VIEWS

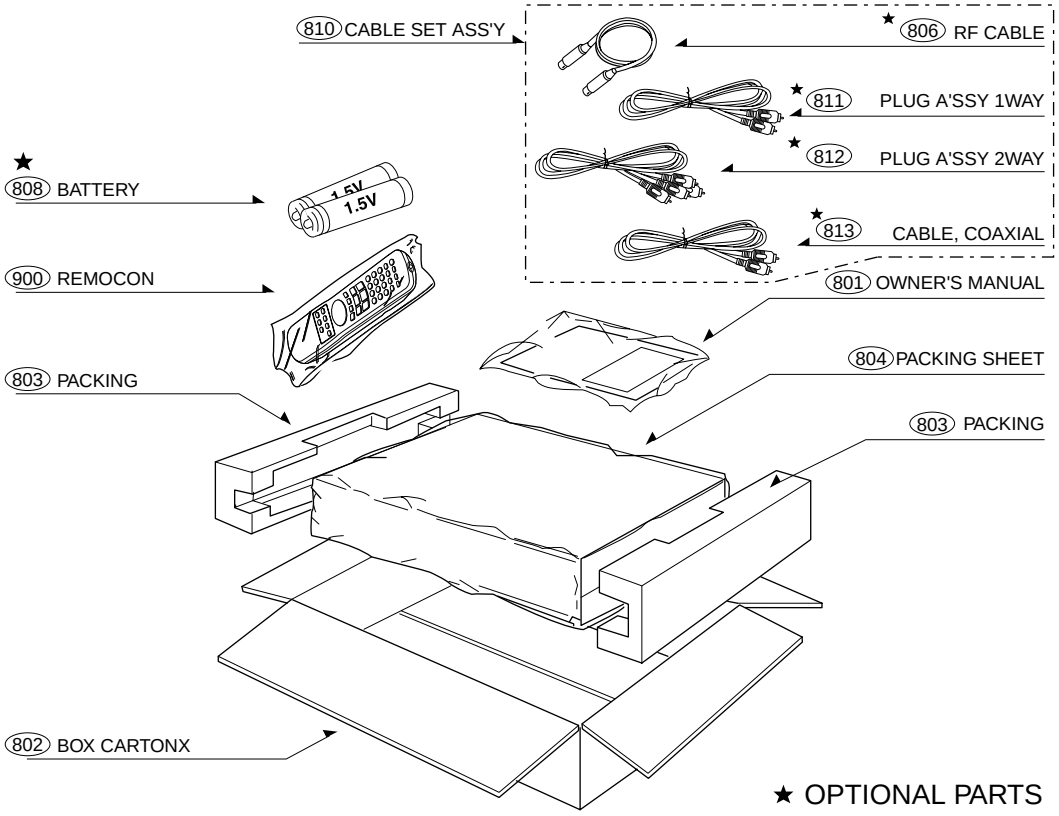
1. Cabinet and Main Frame Section

★ OPTIONAL PART



- **Cabinet and Main Frame Section**

2.Packing Accessory Section



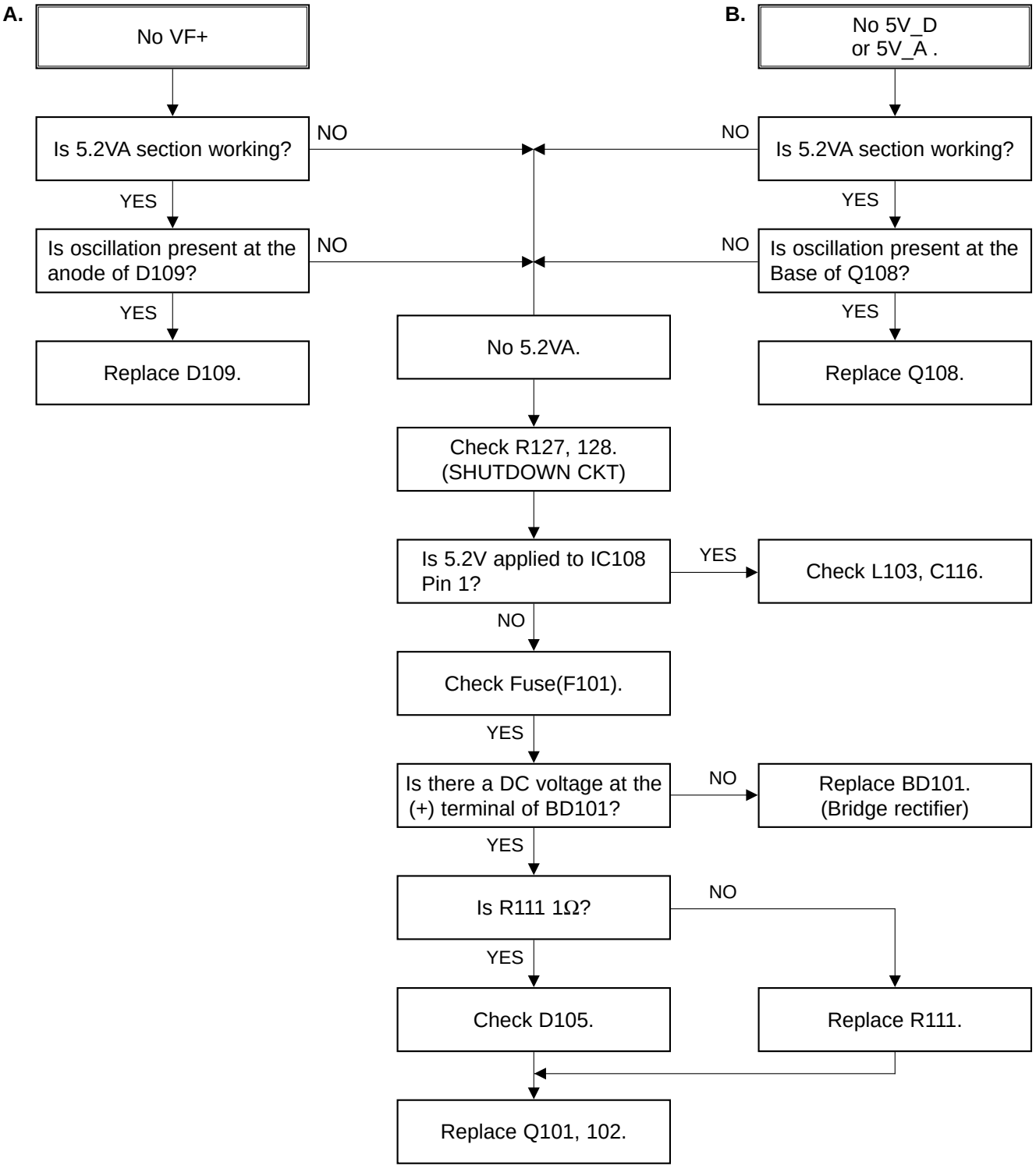
• Packing Accessory Section Part List

SECTION 3
ELECTRICAL

CONTENTS

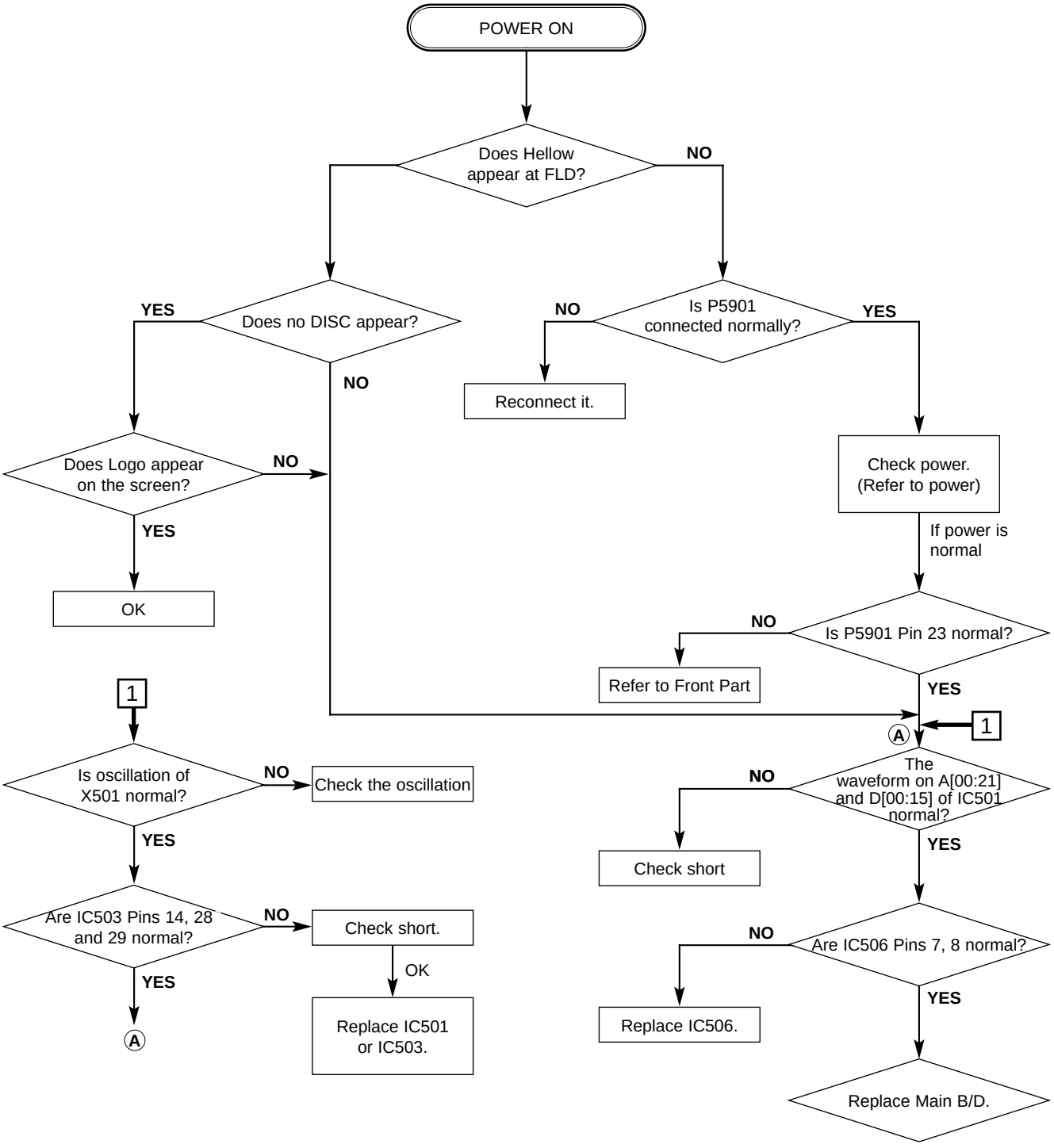
ELECTRICAL TROUBLESHOOTING GUIDE

1. Power(SMPS) Circuit

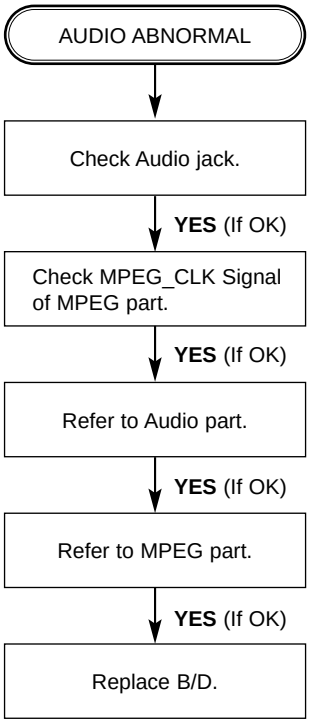


2. µ-COM Circuit

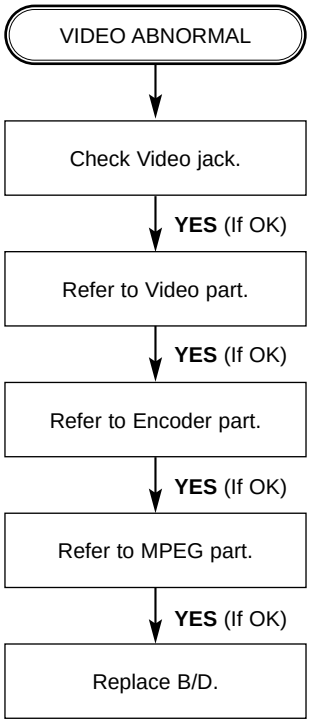
A. No Power



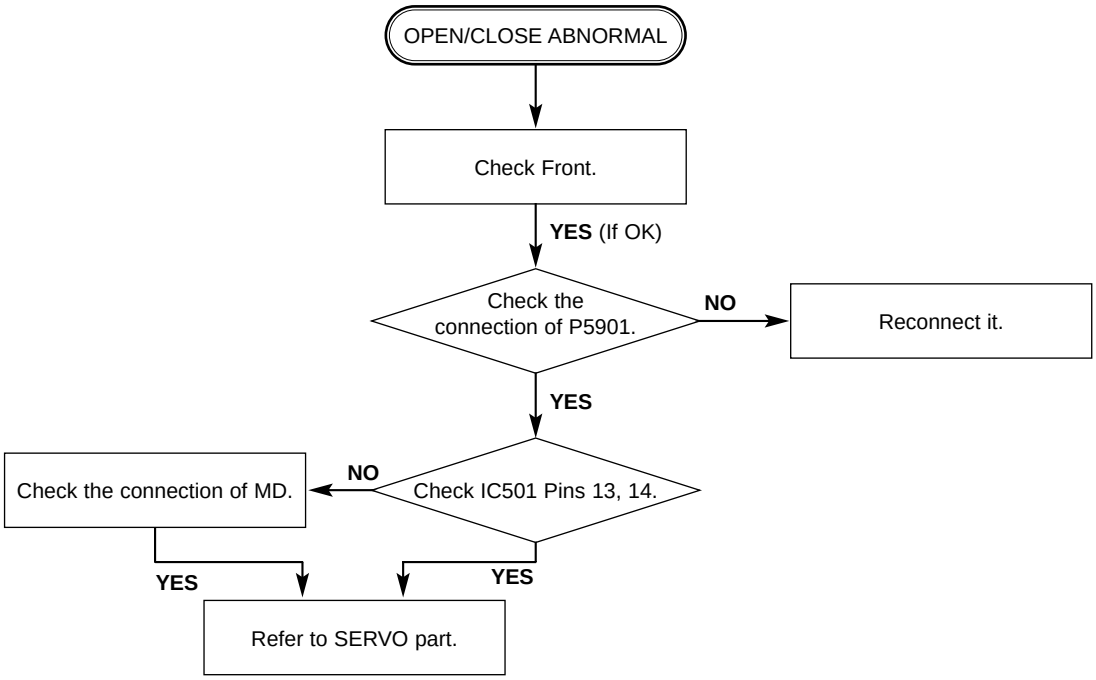
B. Audio abnormal



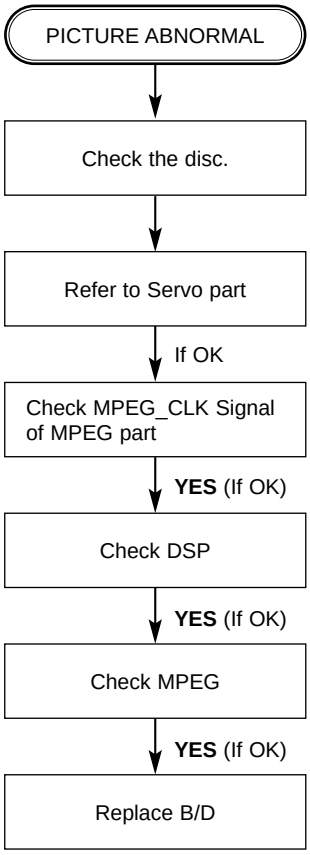
C. Video abnormal



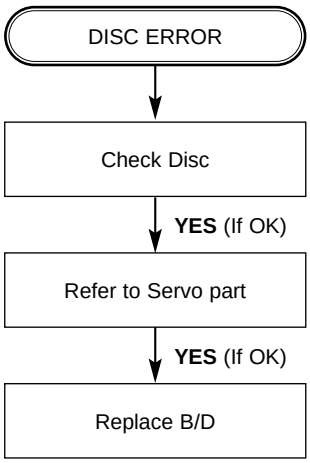
D. Open/Close abnormal



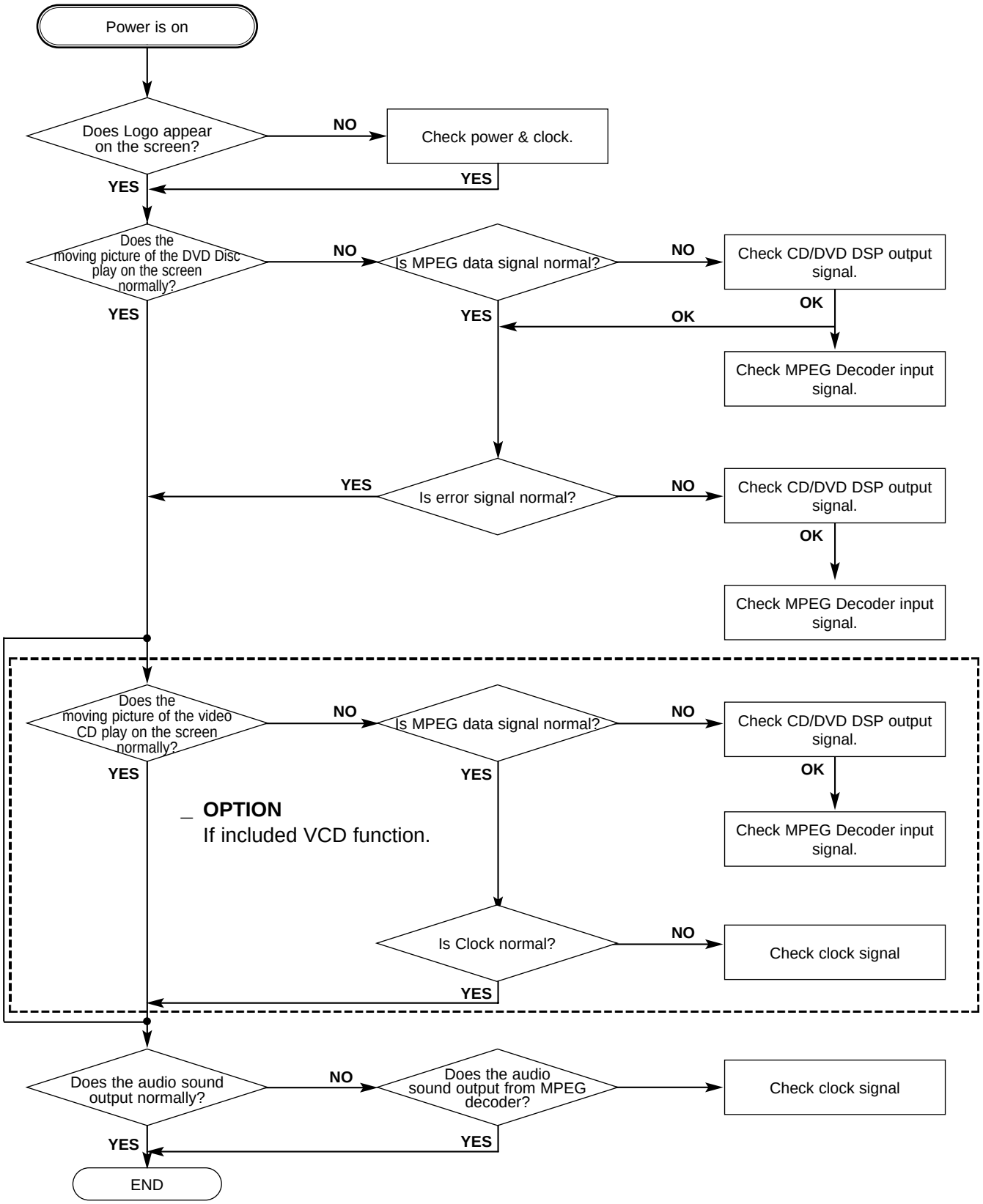
E. Picture abnormal



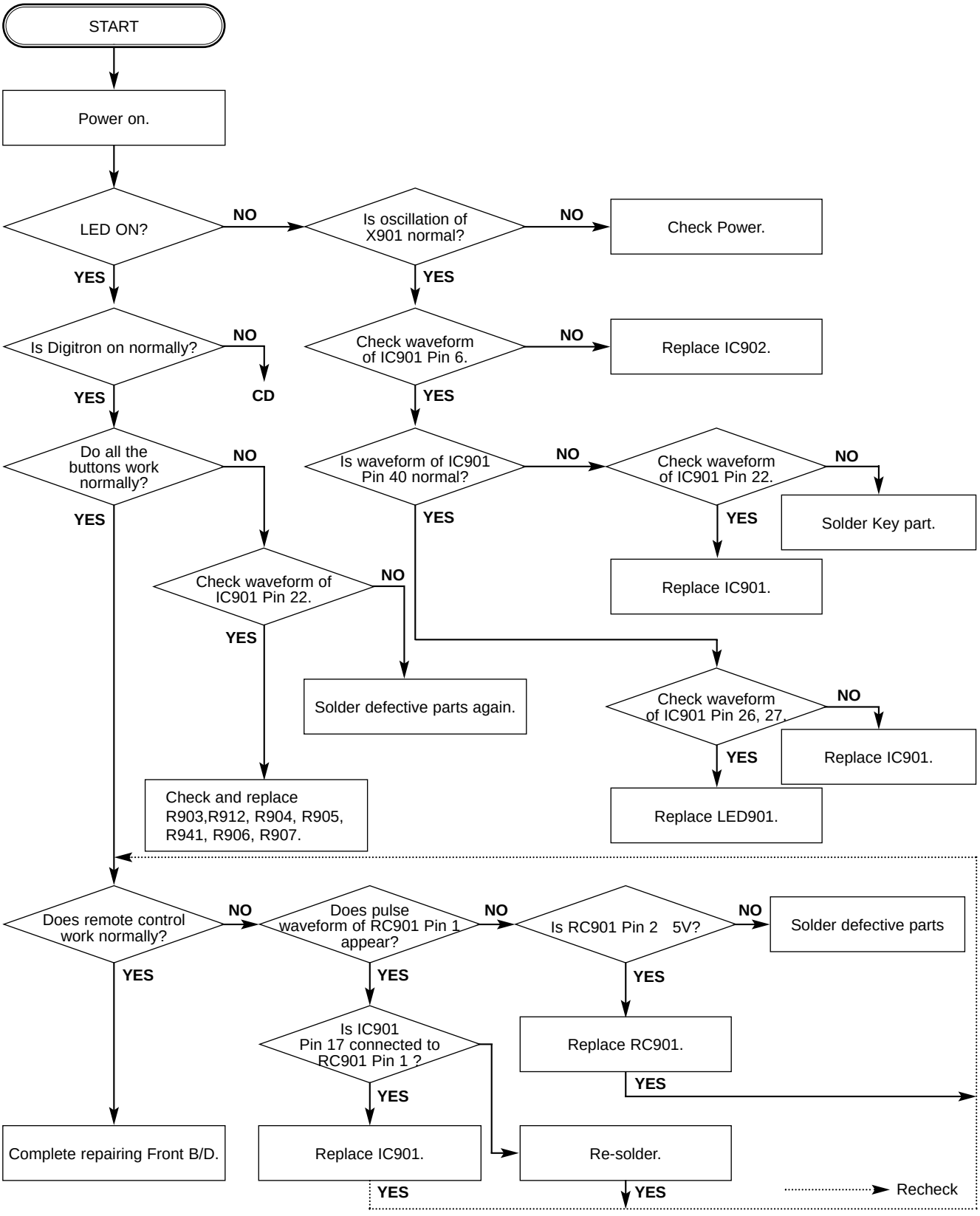
F. Disc Error



3. MPEG Circuit

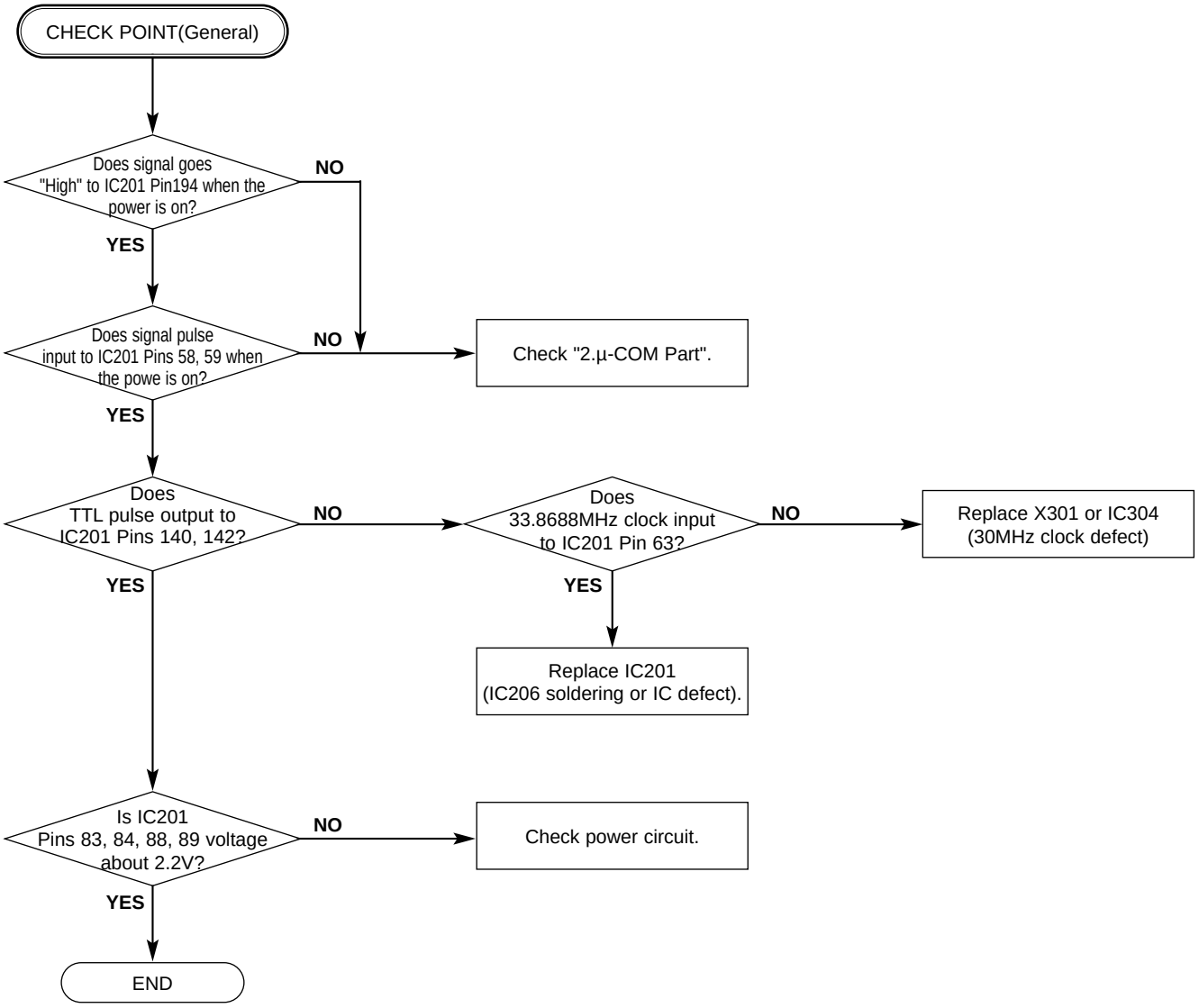


4. Front Circuit (Digitron & key)



5. RF/Servo Circuit

A.



B.

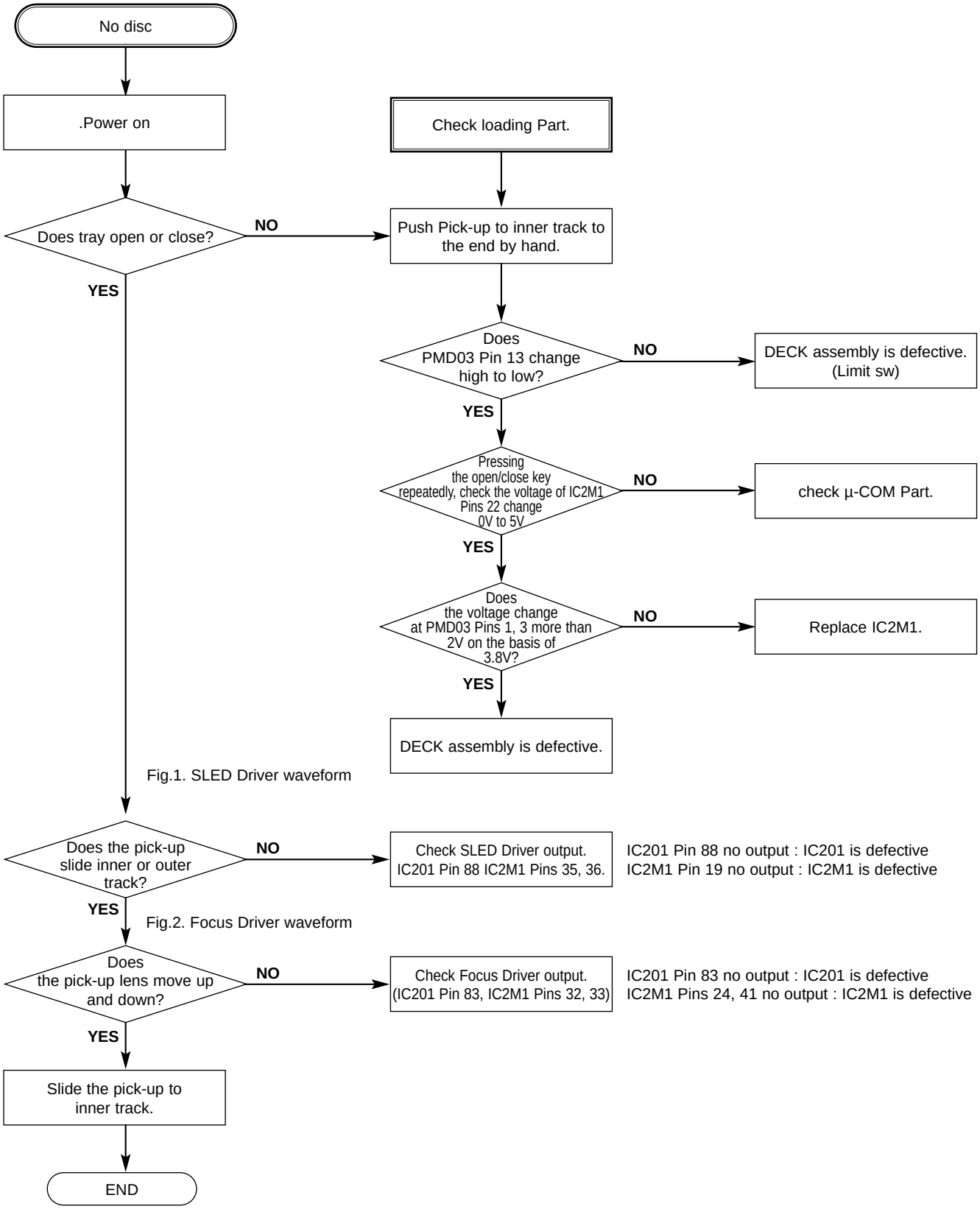


Fig.1. SLED Driver waveform

Fig.2. Focus Driver waveform

C.

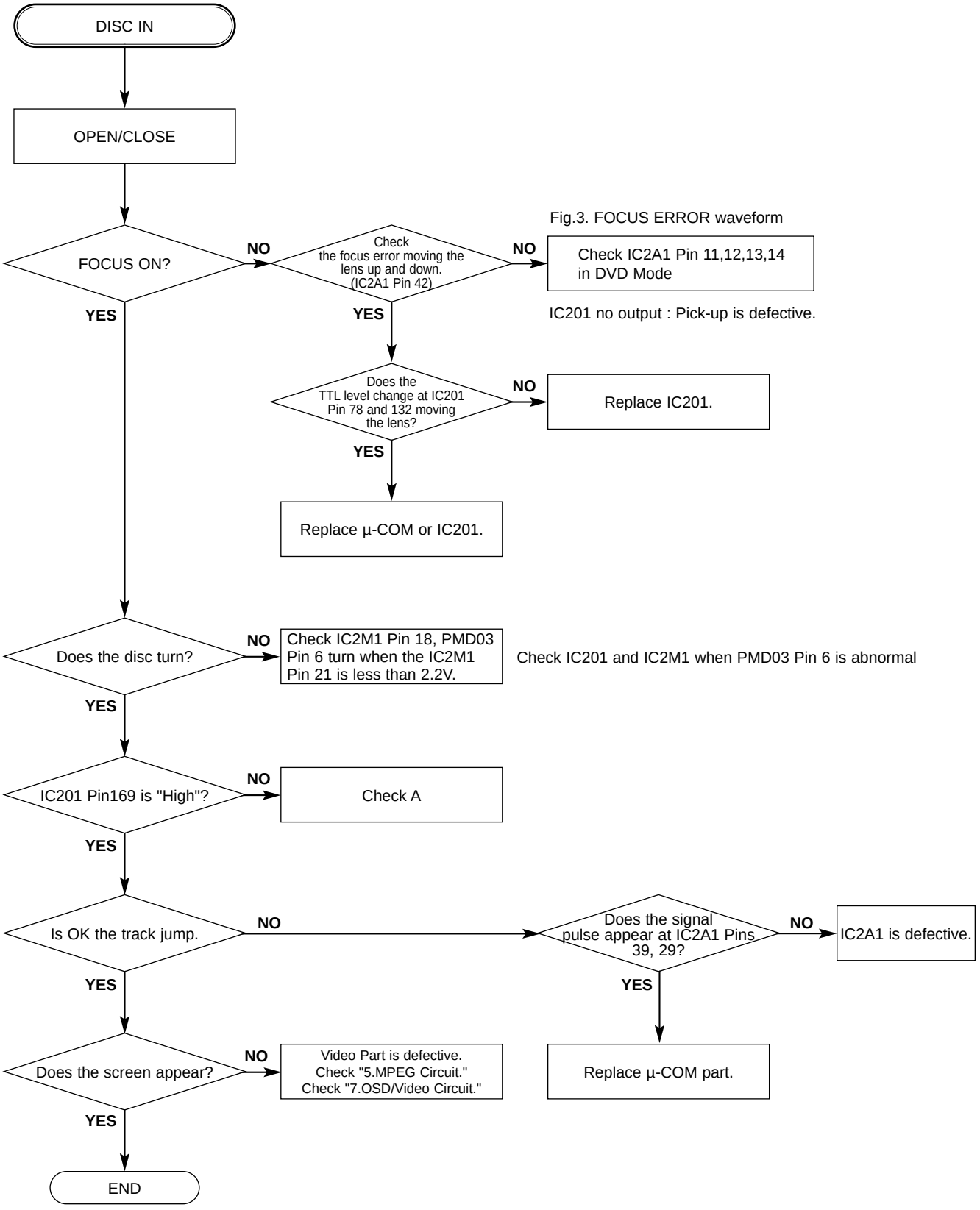
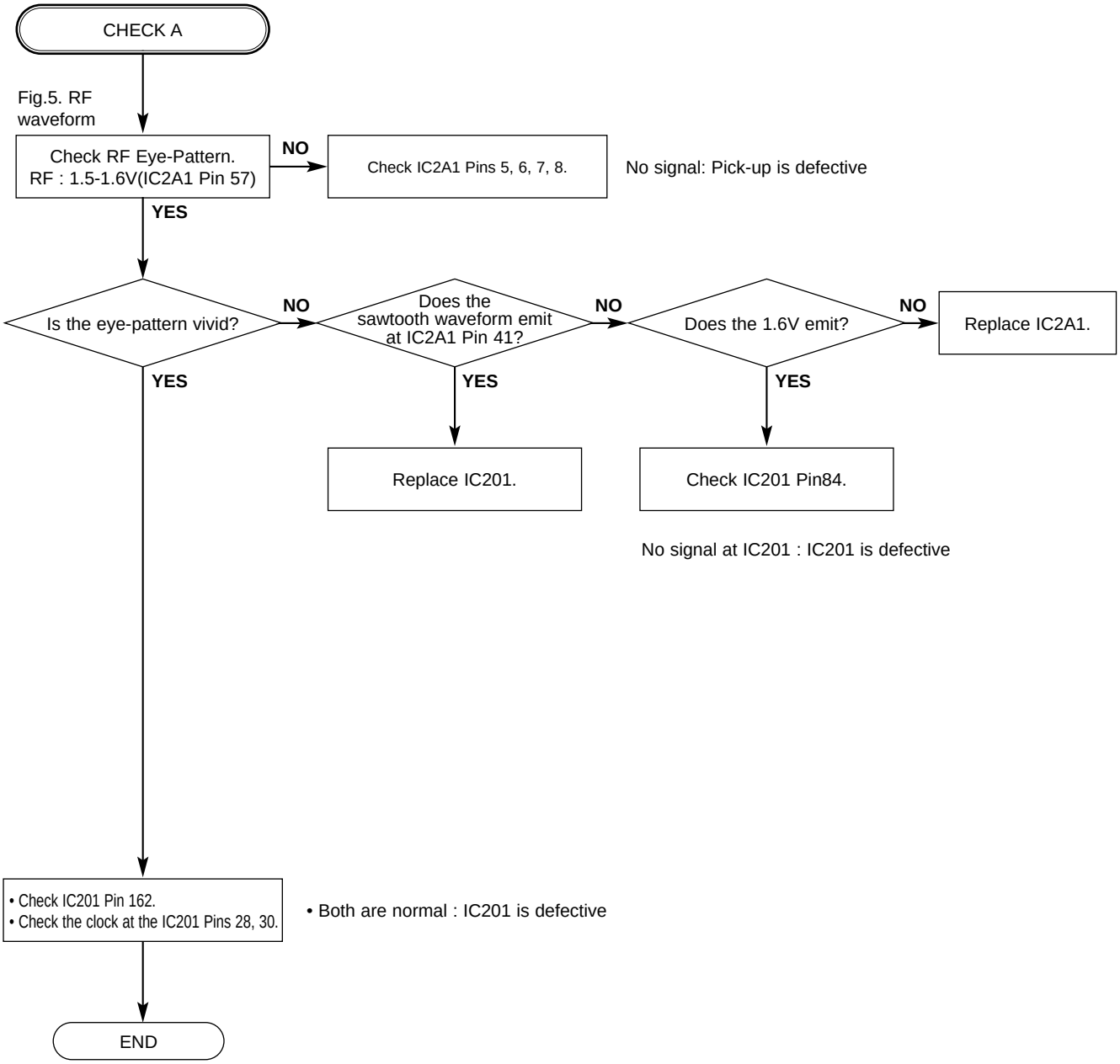


Fig.3. FOCUS ERROR waveform

IC201 no output : Pick-up is defective.

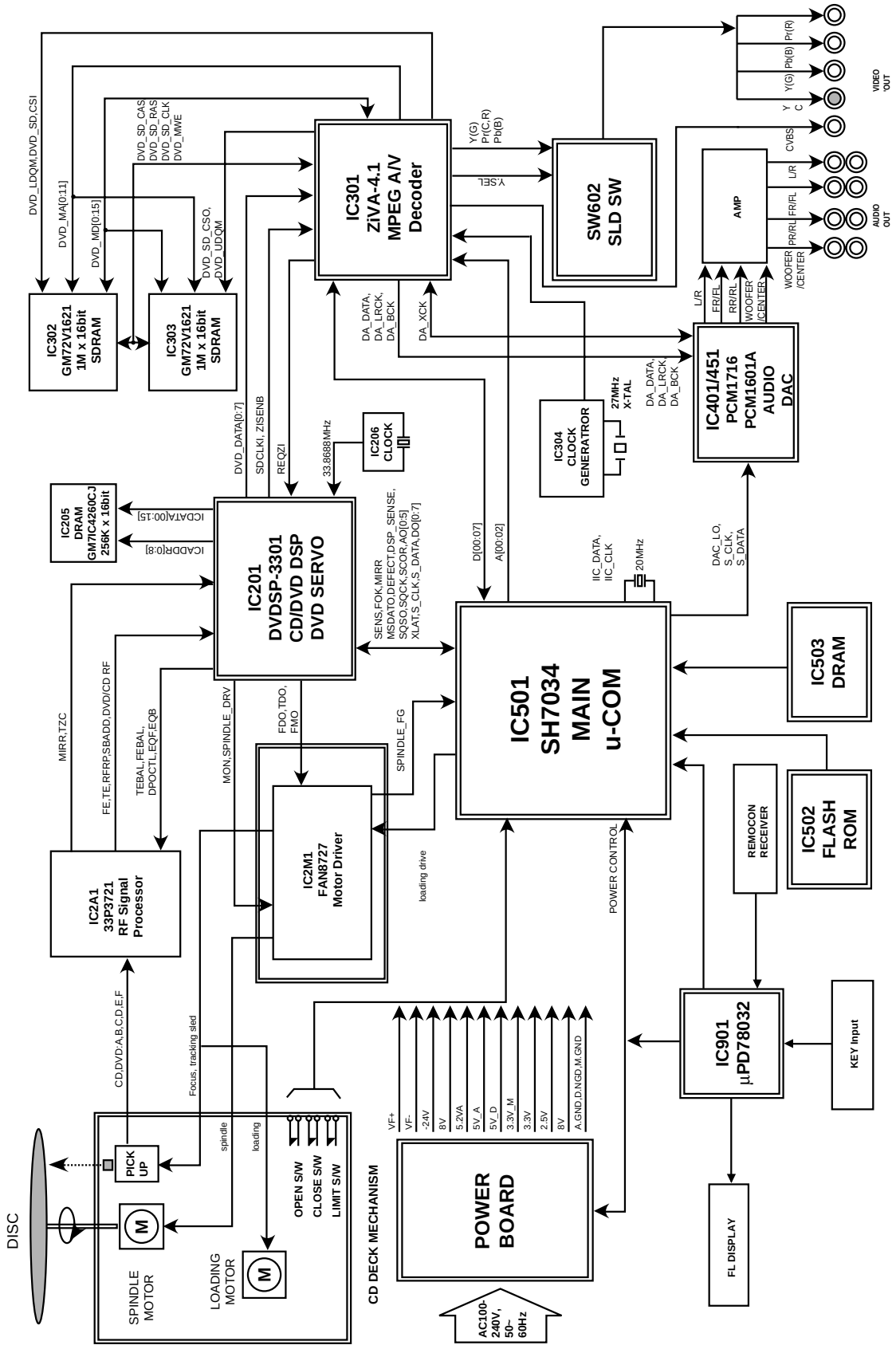
Check IC201 and IC2M1 when PMD03 Pin 6 is abnormal

D.


CHECK A
Fig.5. RF waveform
Check RF Eye-Pattern.
RF : 1.5-1.6V(IC2A1 Pin 57)
NO
Check IC2A1 Pins 5, 6, 7, 8.
No signal: Pick-up is defective
YES
Is the eye-pattern vivid?
NO
Does the sawtooth waveform emit at IC2A1 Pin 41?
NO
Does the 1.6V emit?
NO
Replace IC2A1.
YES
YES
YES
Replace IC201.
Check IC201 Pin84.
No signal at IC201 : IC201 is defective
• Check IC201 Pin 162.
• Check the clock at the IC201 Pins 28, 30.
• Both are normal : IC201 is defective
END

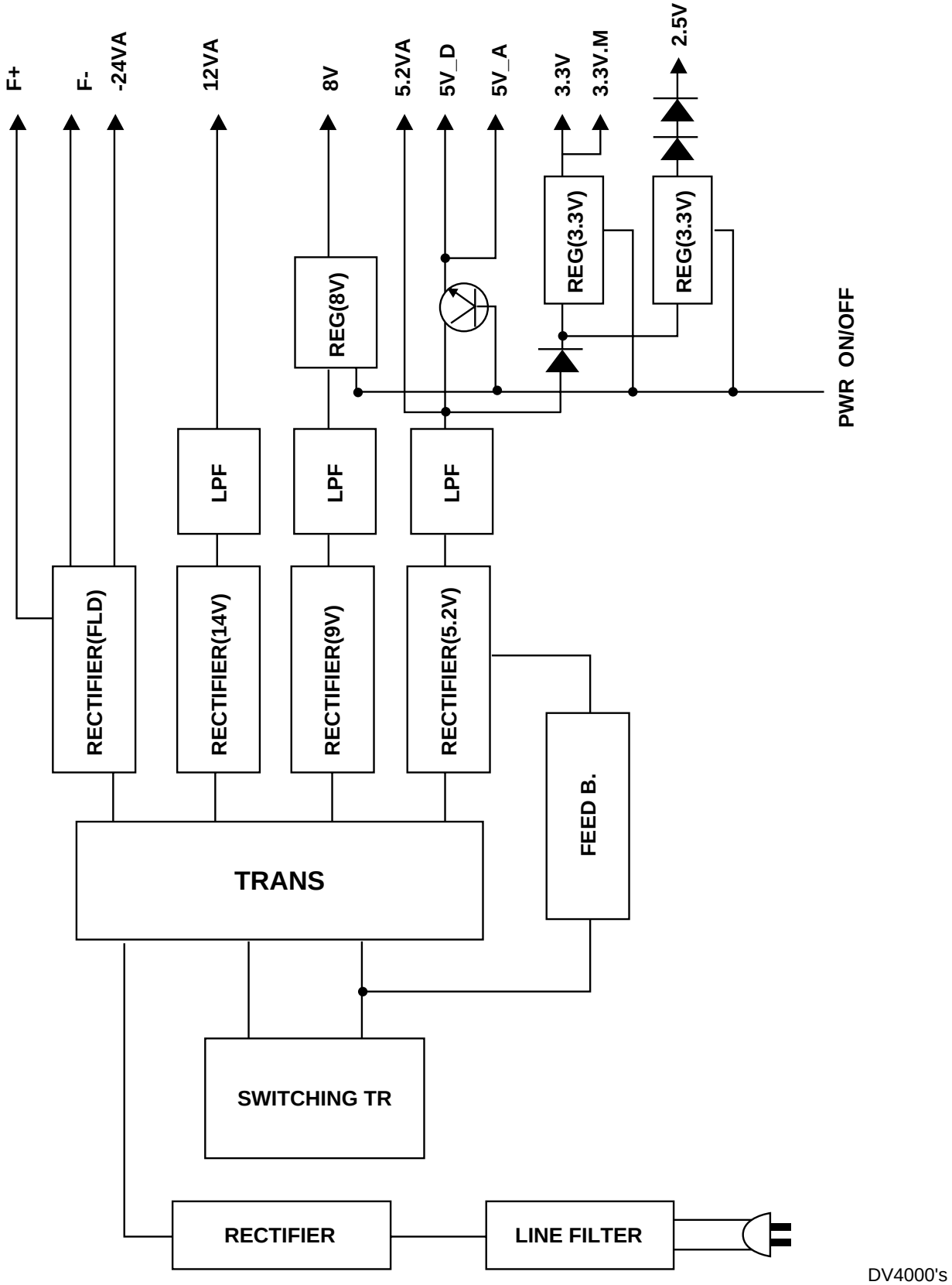
BLOCK DIAGRAMS

1. Overall Block Diagram



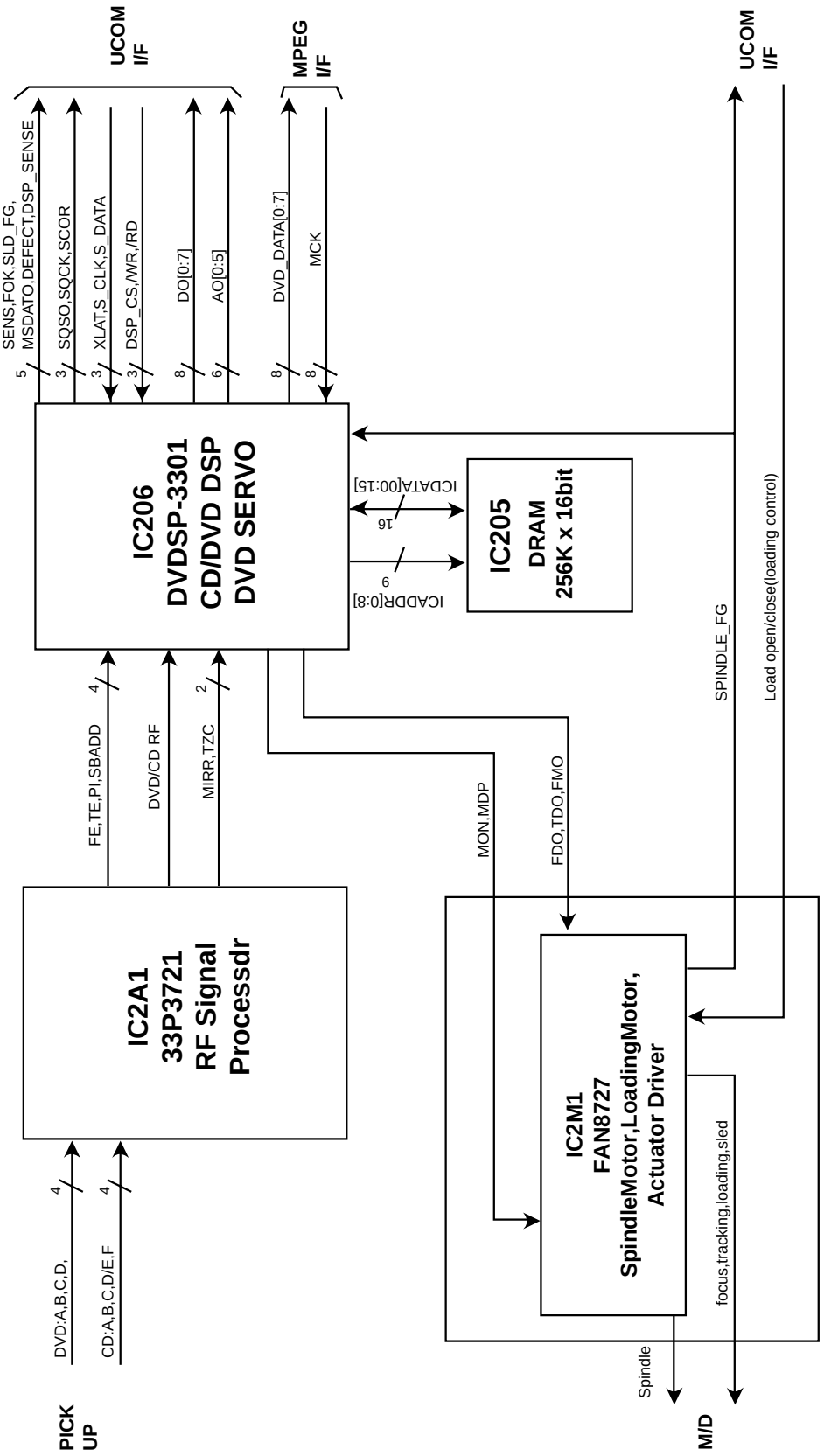
DV4000's

2. Power(SMPS) Block Diagram



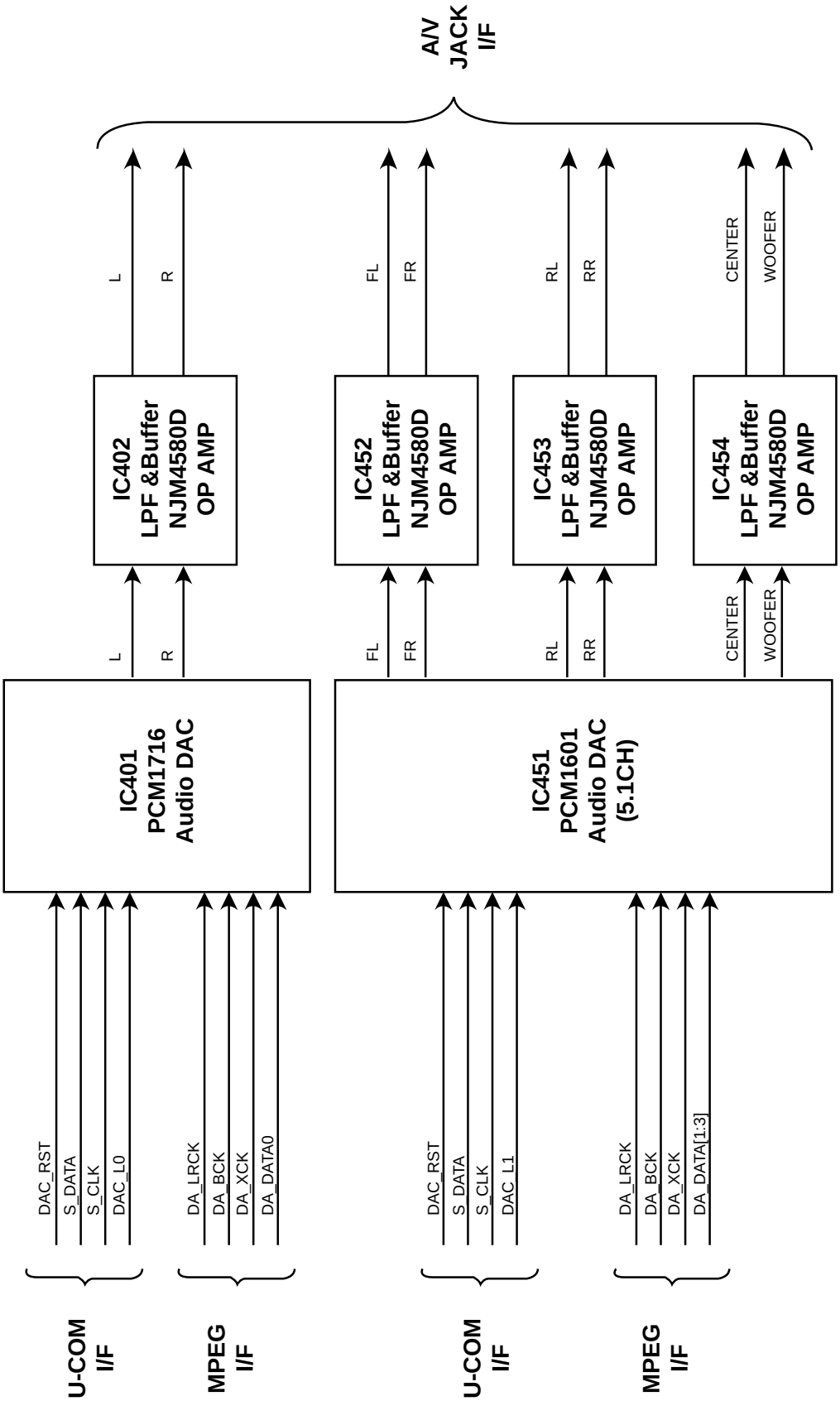
DV4000's

3. RF/CD DSP/DVD DSP/DVD SERVO Block Diagram



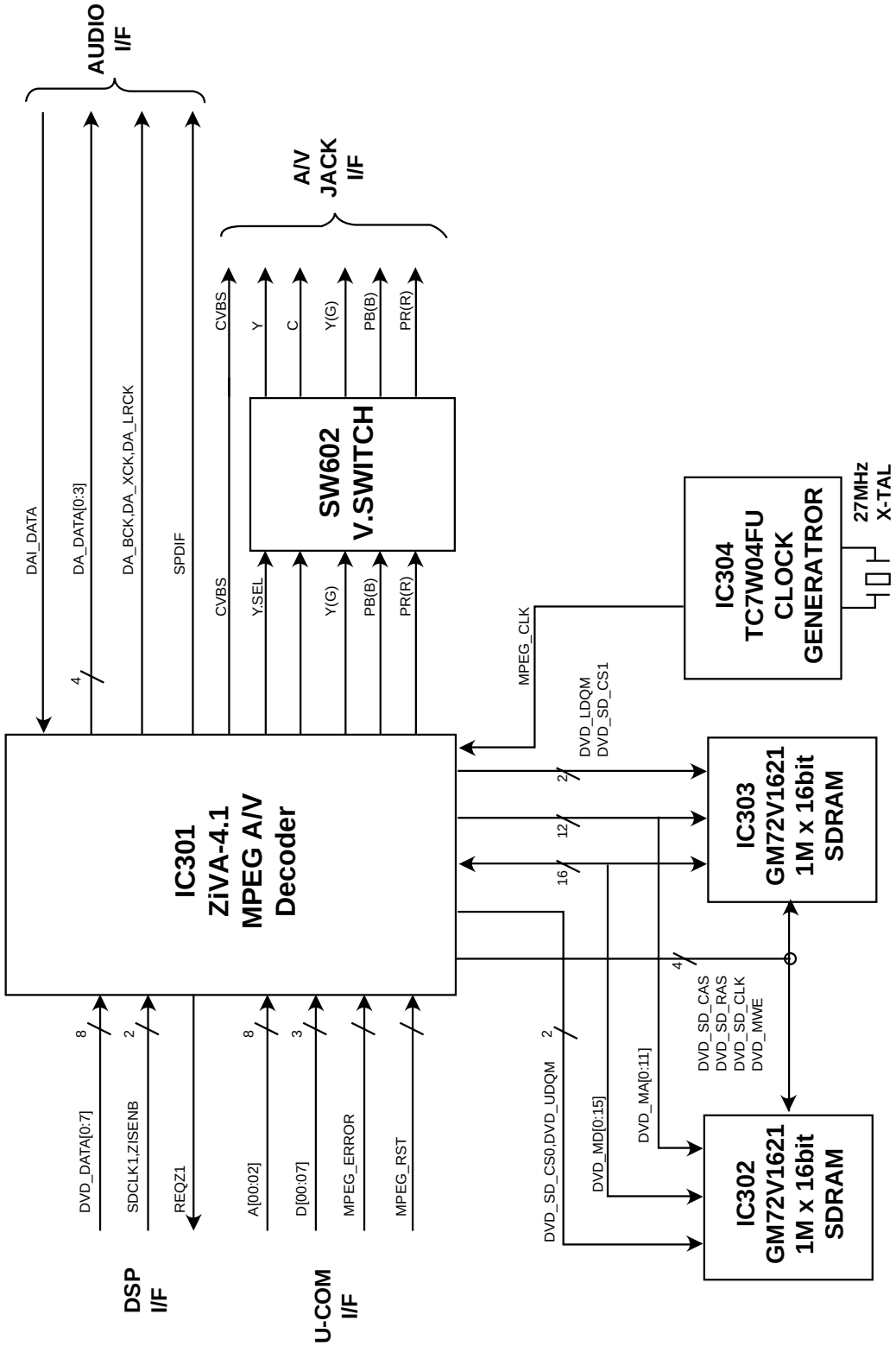
DV4000's

4. Audio Block Diagram



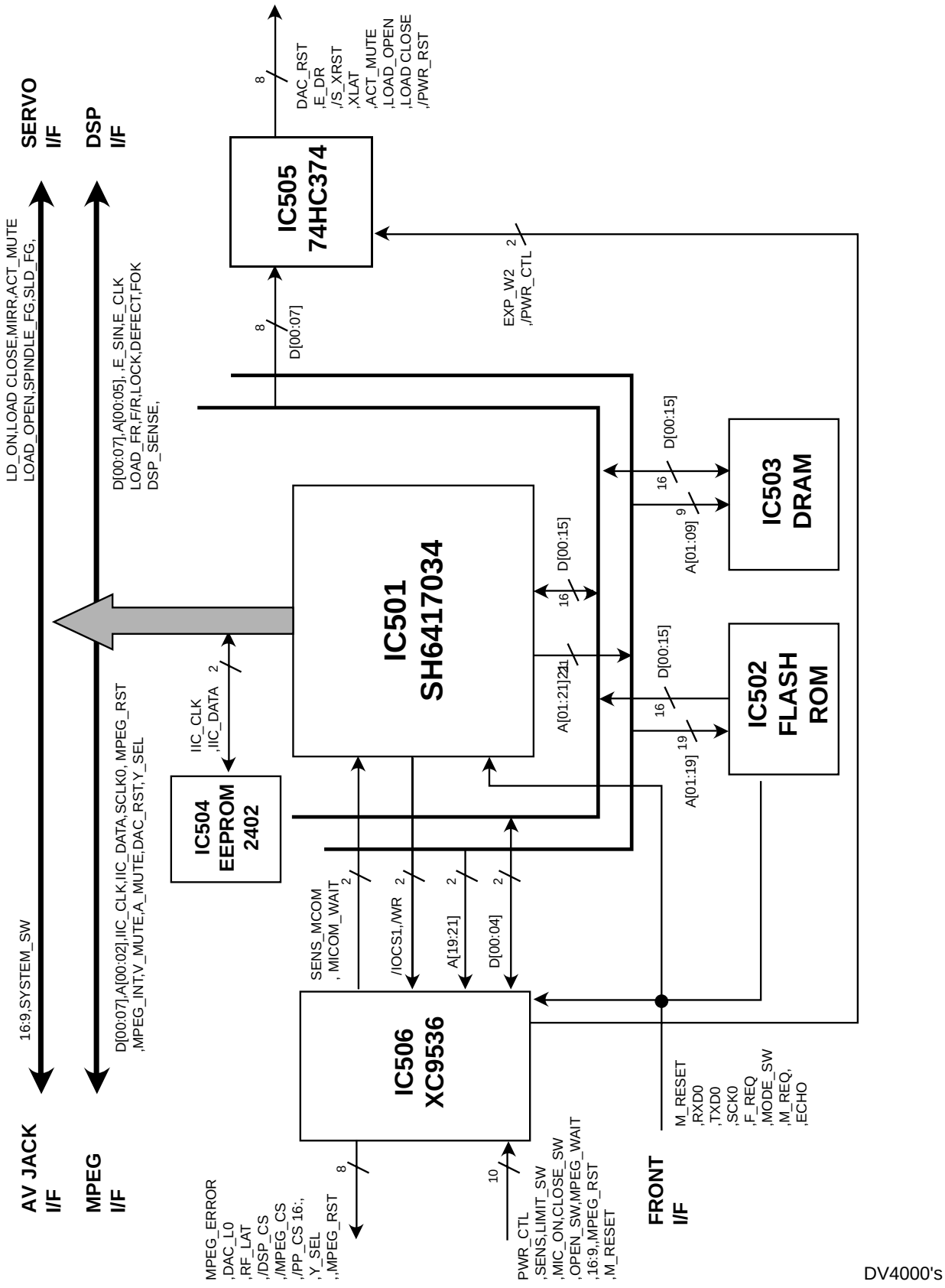
DV4000's

5. MPEG Block Diagram



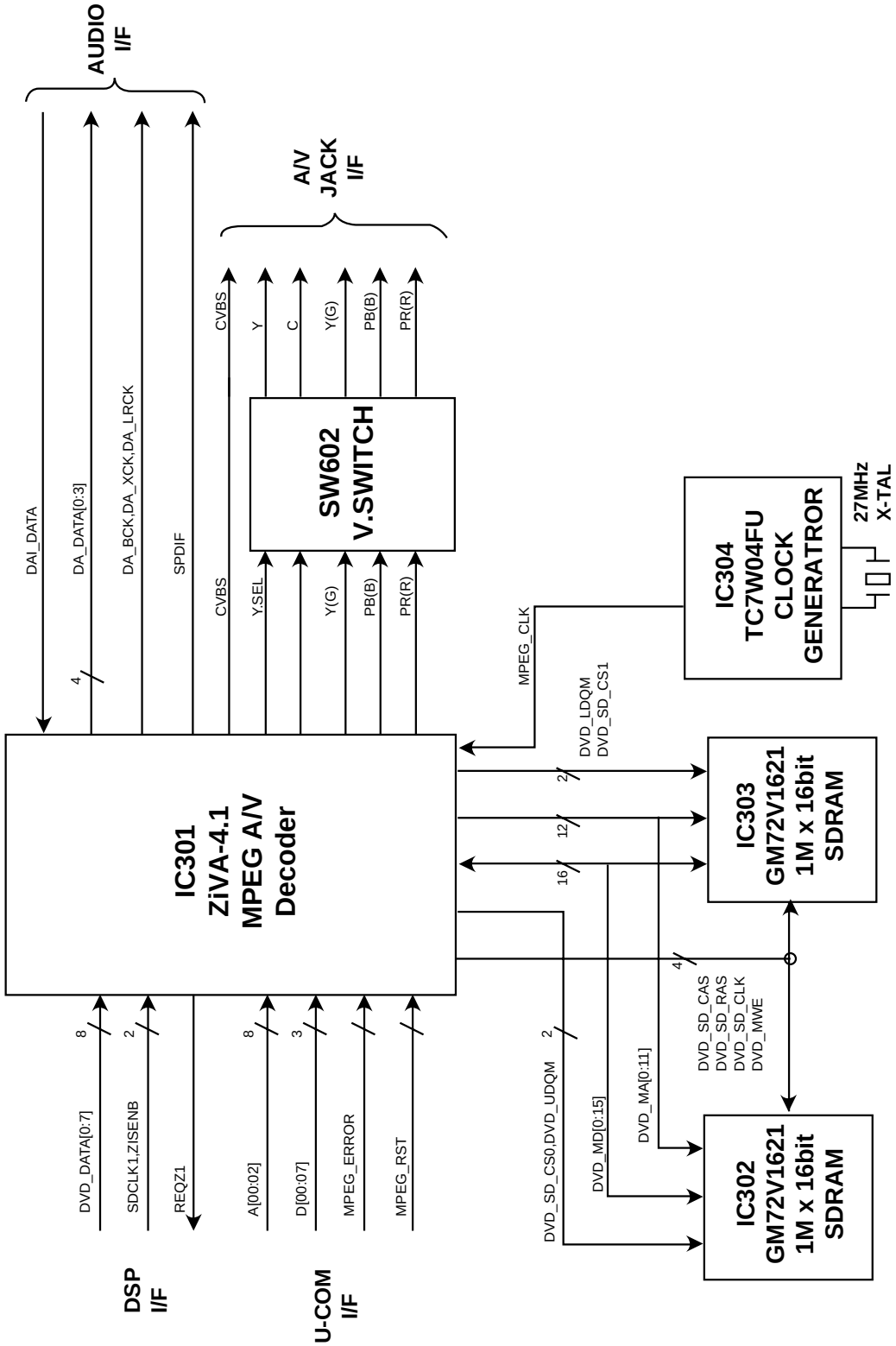
DV4000's

6. µ-COM Block Diagram



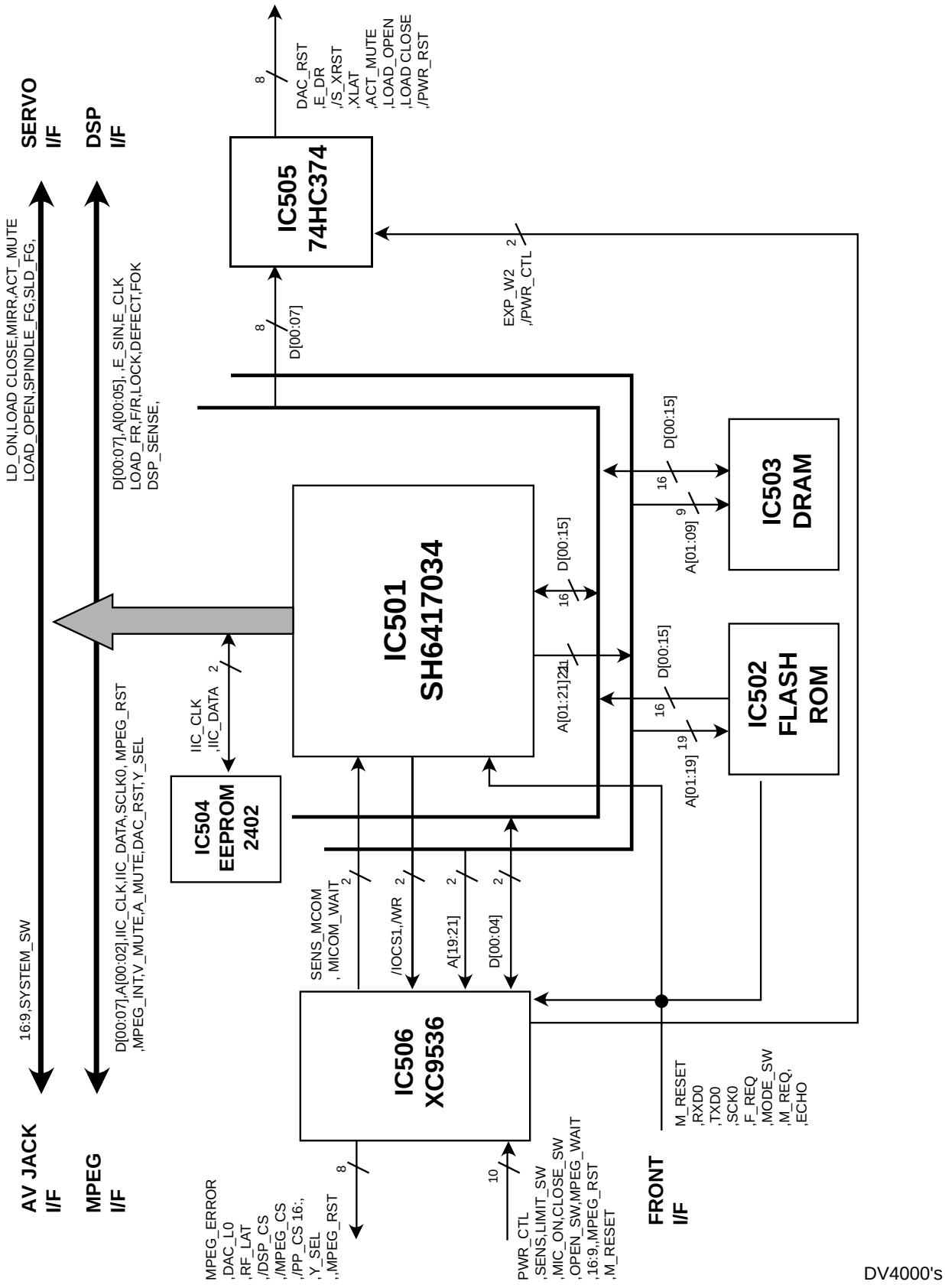
DV4000's

5. MPEG Block Diagram



DV4000's

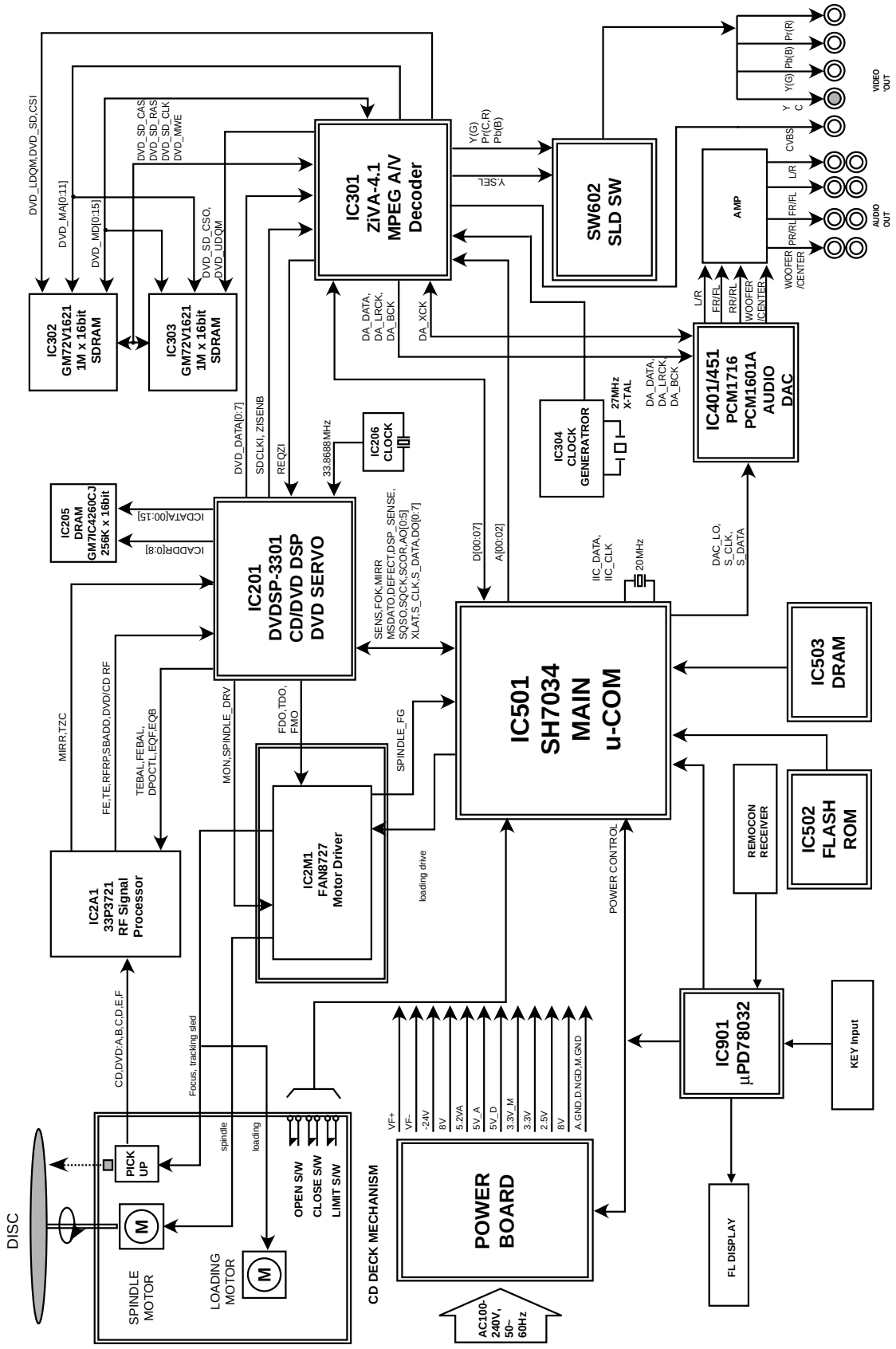
6. µ-COM Block Diagram



DV4000's

BLOCK DIAGRAMS

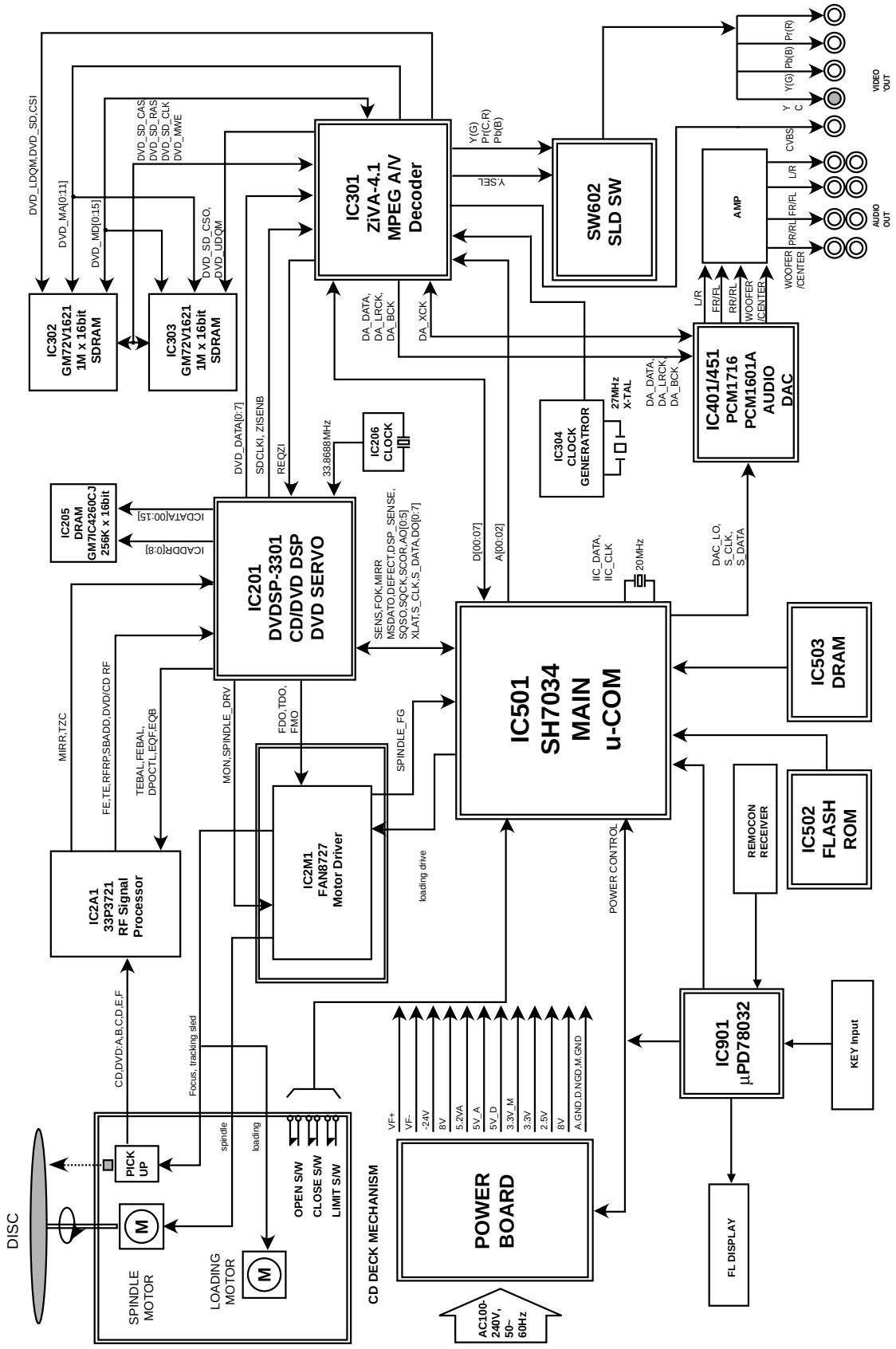
1. Overall Block Diagram



DV4000's

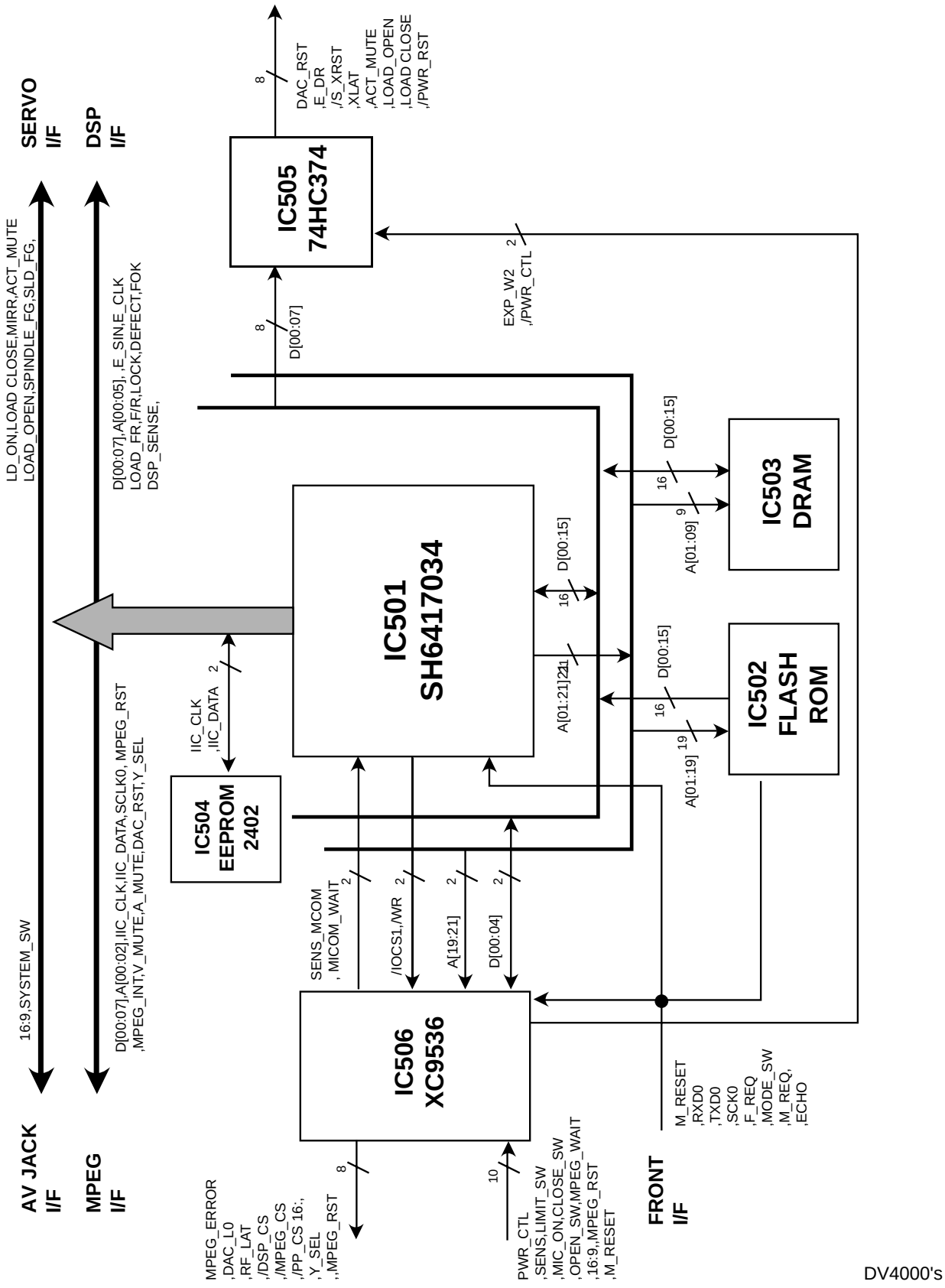
BLOCK DIAGRAMS

1. Overall Block Diagram



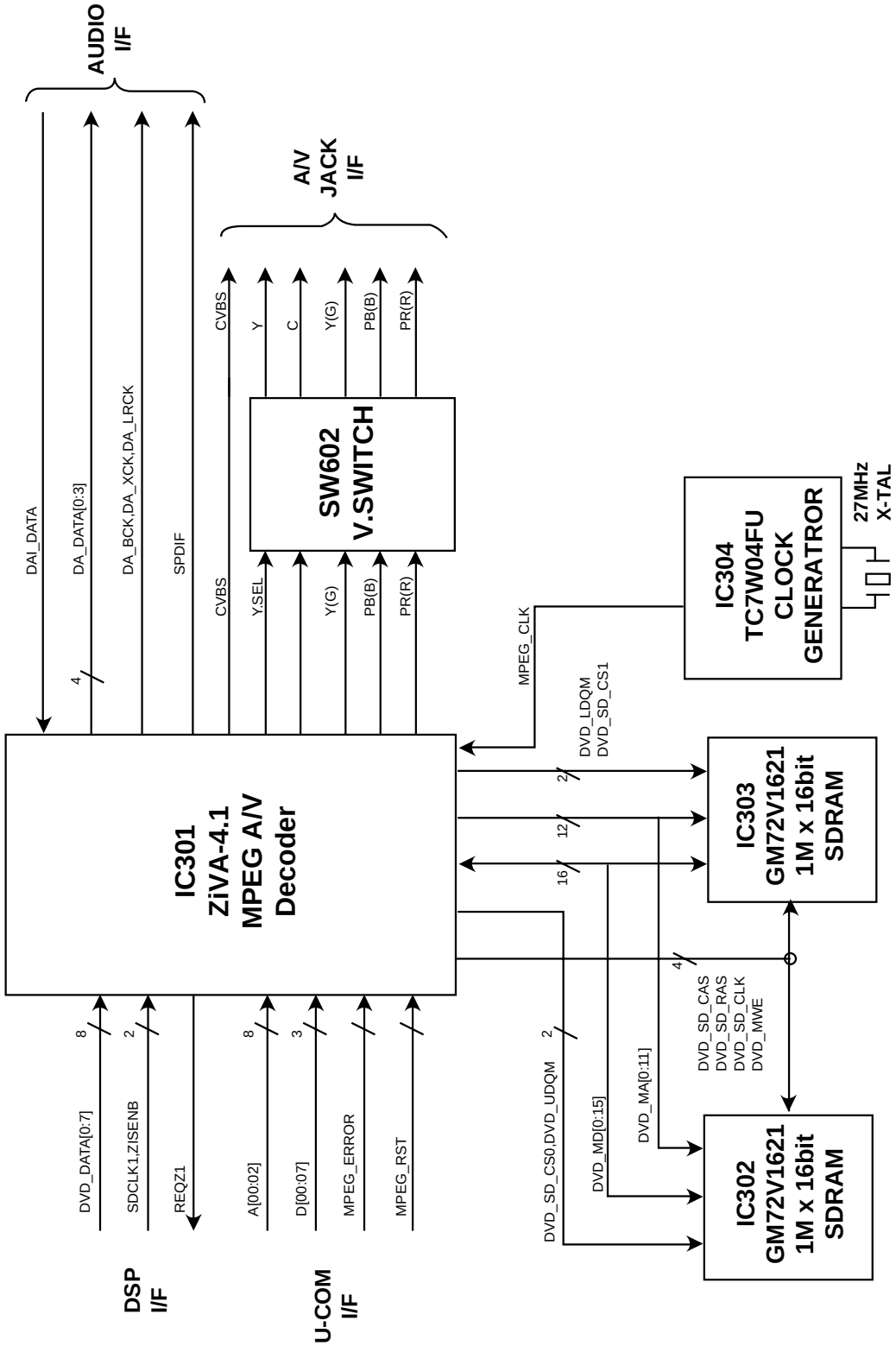
DV4000's

6. µ-COM Block Diagram



DV4000's

5. MPEG Block Diagram



DV4000's

• CIRCUIT VOLTAGE CHART

MODE / PIN NO.	EE	PLAY
D S P		
IC201 SP3301		
1	2.00	1.30
2	2.00	1.30
3	2.00	1.30
4	2.00	1.30
5	2.00	1.30
6	2.00	1.30
7	2.00	1.30
8	2.00	1.30
9	2.00	1.30
10	2.00	1.30
11	2.00	1.30
12	2.00	1.30
13	2.00	1.30
14	2.00	1.30
15	2.00	1.30
16	2.00	1.30
17	0.00	0.00
18	0.00	1.50
19	0.00	1.50
20	0.00	1.50
21	0.00	1.50
22	3.10	3.00
23	0.00	1.50
24	0.00	1.50
25	0.00	1.50
26	0.00	1.50
27	0.00	1.50
28	2.10	1.50
29	0.00	0.00
30	2.10	2.00
31	3.10	3.00
32	3.10	1.50
33	3.10	2.50
34	3.10	2.50
35	2.10	1.30
36	1.10	1.80
37	0.00	0.00
38	0.00	0.00
39	0.00	0.00
40	3.10	3.00
41	0.00	0.00
42	3.10	3.00
43	0.00	0.00
44	0.00	0.00
45	3.10	3.00
46	0.00	0.00
47	0.00	0.00
48	0.00	0.00
49	0.00	3.00
50	0.00	0.00
51	0.00	0.00
52	3.10	1.80
53	0.00	0.00
54	3.10	3.00
55	3.10	3.00
56	0.00	0.00
57	0.00	3.13
58	5.00	4.98
59	0.00	0.00
60	0.00	0.00
61	5.00	4.98
62	0.00	0.00
63	2.10	2.10
64	0.00	0.00
65	3.10	3.00
66	0.00	0.00
67	3.10	3.12
68	0.00	0.00
69	0.00	0.20
70	0.00	0.00
71	3.10	3.10
72	0.00	0.20
73	0.00	0.00
74	3.10	3.10
75	0.00	0.00
76	0.00	0.00
77	0.00	0.00
78	0.00	2.30
79	3.10	3.10
80	5.00	5.00
81	0.00	0.00
82	5.00	5.00
83	2.10	2.00
84	2.10	2.10
85	3.10	3.10
86	1.40	1.40
87	0.00	0.00
88	2.10	2.00
89	2.10	2.00
90	0.00	0.00
91	1.50	1.55
92	3.10	3.12
93	1.60	1.55
94	1.10	1.11
95	2.00	2.00
96	1.55	1.55
97	0.00	0.00
98	1.55	1.55
99	1.56	2.15
100	3.10	3.10
101	1.55	1.58
102	1.55	1.55
103	1.62	1.64
104	1.55	1.55
105	1.50	1.50
106	0.00	0.00
107	0.00	0.00
108	0.00	0.00
109	0.00	0.00
110	0.00	0.00
111	0.00	0.00
112	0.00	0.00
113	3.40	4.70
114	5.00	5.00
115	1.50	1.50
116	1.50	1.53
117	3.10	3.10
118	0.00	0.00
119	0.00	0.00
120	3.50	4.20
121	3.25	4.20
122	3.45	4.30
123	3.50	4.30
124	3.50	4.30
125	3.50	4.50
126	0.00	0.00
127	3.60	2.60
128	0.00	0.00
129	3.60	2.60
130	0.00	0.20
131	0.00	0.00
132	0.00	3.10
133	3.10	3.10
134	0.00	0.00
135	0.00	0.00
136	3.10	2.20
137	0.00	0.00
138	0.00	0.00
139	3.10	3.10
140	3.00	3.10
141	0.00	0.00
142	3.00	3.00
143	3.10	3.10
144	3.10	3.10
145	3.10	0.90
146	3.50	4.50
147	0.00	0.00
148	0.00	0.00
149	0.00	0.00
150	0.00	0.00
151	0.00	0.00
152	0.00	0.00
153	0.00	0.00
154	0.00	0.00
155	1.55	1.55
156	3.10	3.10
157	1.50	1.50
158	0.00	0.00
159	0.00	0.00
160	2.60	2.60
161	3.10	3.10
162	2.00	2.00
163	2.00	2.00
164	1.40	1.40
165	3.20	0.00
166	1.60	1.75
167	0.00	0.00
168	0.00	3.10
169	0.00	3.10
170	5.00	2.50
171	0.00	2.50
172	3.10	0.00
173	3.10	3.10
174	3.10	3.10
175	3.10	3.10
176	2.53	1.30
177	4.24	4.97
178	5.00	5.00
179	2.70	0.20
180	3.26	2.30
181	3.10	2.50
182	2.40	2.50
183	3.66	2.80
184	2.40	2.50
185	0.00	0.00
186	2.26	2.00
187	3.10	3.10
188	2.20	2.40
189	1.75	1.90
190	2.20	1.80
191	1.80	1.80
192	2.20	2.20
193	1.25	1.30
194	1.00	1.10
195	5.00	5.00
196	0.00	2.25
197	0.00	1.60
198	0.00	1.50
199	0.00	1.50
200	0.00	1.50
201	0.00	1.50
202	0.00	1.50
203	0.00	1.50
204	0.00	1.50
205	3.10	2.60
206	1.50	1.50
207	3.10	3.10
208	3.10	3.10
IC205 GM71C4260CJ		
1	3.16	3.18
2	2.01	2.07
3	2.01	2.07
4	2.02	2.07
5	2.02	2.07
6	3.16	3.18
7	2.02	2.08
8	2.02	2.07
9	2.02	2.07
10	2.02	2.07
11	0.10	0.00
12	0.26	0.00
13	2.08	2.09
14	3.16	3.17
15	0.00	0.00
16	0.00	0.00
17	0.00	0.00
18	0.00	0.00
19	0.00	0.00
20	3.15	3.18
21	0.00	0.00
22	0.00	0.00
23	0.00	0.00
24	0.00	0.00
25	0.00	0.00
26	0.00	0.00
27	1.06	1.07
28	3.14	3.17
29	3.14	3.16
30	0.00	0.00
31	2.01	2.08
32	2.02	2.08
33	2.02	2.08
34	2.02	2.08
35	0.00	0.00
36	2.02	2.08
37	2.02	2.08
38	2.02	2.08
39	2.02	2.08
40	0.00	0.00
IC204 4W53FU		
1	1.50	1.50
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	3.10	3.10
6	1.50	1.50
7	2.72	2.60
8	5.00	5.00
IC206 7W04FU		
1	2.60	2.60
2	2.80	2.70
3	2.80	2.70
4	0.00	0.00
5	2.10	2.10
6	2.20	2.20
7	2.20	2.20
8	5.00	5.00
IC203 NJM3414AM		
1	2.00	2.00
2	2.00	2.00
3	2.00	2.00
4	0.00	0.00
5	1.10	1.10
6	1.10	1.10
7	1.10	1.10
8	5.00	5.00
S E R V O		
IC2M1 FAN8727		
1	5.02	0.80
2	5.01	2.48
3	2.08	2.07
4	2.12	1.95
5	5.01	4.98
6	0.20	0.60
7	0.00	0.00
8	7.92	7.89
9	7.92	7.87
10	0.00	3.07
11	3.87	0.00
12	0.00	0.00
13	0.00	0.00
14	0.00	5.34
15	0.00	5.33
16	0.00	5.34
17	1.84	1.84
18	1.84	1.84
19	2.12	1.95
20	7.92	7.88
21	7.92	7.88
22	2.07	2.05
23	2.07	2.05
24	2.07	2.05
25	2.06	2.05
26	4.04	4.01
27	4.04	4.01
28	4.04	4.04
29	4.04	3.98
30	0.00	0.00
31	0.00	0.00
32	4.03	4.10
33	4.01	3.90
34	7.93	7.88
35	4.02	4.01
36	4.02	4.01
37	0.00	0.00
38	0.00	0.00
39	0.00	0.00
40	7.92	7.90
41	2.07	2.06
42	0.00	0.00
43	5.01	2.90
44	5.01	2.90
45	5.01	2.90
46	5.01	2.90
47	5.01	2.90
48	5.01	2.90
IC2A1 33P3721		
1	3.44	3.38
2	3.12	3.40
3	2.50	2.50
4	2.51	2.53
5	3.50	3.44
6	3.46	3.44
7	3.47	3.45
8	3.47	3.44
9	3.48	3.44
10	3.43	3.41
11	2.52	2.70
12	2.52	2.70
13	2.52	2.60
14	2.52	2.60
15	2.56	2.70
16	2.48	2.50
17	2.98	3.30
18	0.00	0.00
19	4.50	4.58
20	0.00	0.00
21	0.00	0.20
22	4.96	3.85
23	0.00	0.00
24	4.95	4.92
25	5.00	0.00
26	2.52	2.50
27	1.55	1.55
28	4.97	4.93
29	0.00	0.40
30	2.55	2.63
31	2.51	2.56
32	4.90	4.65
33	0.00	0.20
34	0.00	2.60
35	0.00	2.50
36	1.56	2.15
37	3.58	0.00
38	2.62	3.20
39	0.00	2.60
40	2.50	2.60
41	1.55	1.60
42	1.46	1.65
43	1.58	1.64
44	2.52	2.50
45	4.92	4.97
46	4.99	5.00
47	0.00	0.00
48	0.00	0.00
49	3.59	0.00
50	0.00	0.00
51	2.35	0.00
52	2.37	2.30
53	3.51	3.47
54	3.51	3.46
55	0.61	0.00
56	1.67	2.42
57	2.95	2.88
58	4.98	4.93
59	3.48	3.40
60	3.48	3.40
61	3.71	3.70
62	3.75	3.70
63	0.27	0.36
64	2.40	0.90
IC2A2 NJM3414		
1	1.57	1.54
2	1.57	1.54
3	1.57	1.54
4	0.00	0.00
5	1.63	1.64
6	1.64	1.64
7	2.62	2.42
8	4.97	4.93
IC2A3 AD829		
1	0.00	0.00
2	2.40	2.50
3	2.40	2.40
4	0.00	0.00
5	0.00	0.00
6	2.00	2.00
7	5.20	5.20
8	0.00	0.00
M P E G		
IC301 ZIVA4.1		
1	3.13	3.10
2	0.15	0.20
3	3.13	3.10
4	1.07	4.00
5	5.00	5.00
6	0.00	0.00
7	3.14	3.10
8	3.00	3.00
9	2.60	2.60
10	2.60	2.60
11	2.60	2.60
12	2.60	2.60
13	2.50	2.50
14	0.00	0.00
15	2.60	2.60
16	2.60	2.60
17	2.60	2.60
18	2.60	2.60
19	0.00	0.00
20	3.13	3.10
21	3.10	2.90
22	3.10	2.90
23	3.10	2.90
24	3.10	2.80
25	3.10	2.80
26	3.10	2.80
27	3.10	2.70
28	3.10	2.70
29	3.10	3.10
30	2.65	2.60
31	0.00	0.00
32	3.13	3.10
33	0.00	0.00
34	0.00	0.00
35	0.00	0.00
36	2.50	2.50
37	0.00	0.00
38	0.00	0.00
39	0.00	0.00
40	3.13	3.10
41	0.00	0.00
42	0.00	0.00
43	3.13	3.10
44	0.00	0.00
45	3.13	3.10
46	3.10	3.10
47	3.10	3.10
48	3.10	3.10
49	3.10	3.10
50	3.10	3.10
51	3.10	3.10
52	3.10	3.10
53	0.00	1.20
54	0.00	1.20
55	3.12	3.10
56	0.00	0.00
57	1.00	1.20
58	1.00	1.20
59	0.70	1.30
60	1.00	1.20
61	0.90	1.20
62	1.20	1.50
63	0.80	1.34
64	3.12	3.20
65	0.00	0.00
66	0.10	1.20
67	2.50	2.50
68	0.00	0.00
69	0.90	1.10
70	0.90	1.30
71	0.62	1.10
72	0.36	1.10
73	0.95	1.20
74	3.12	3.10
75	0.00	0.00
76	0.55	1.20
77	0.00	0.00
78	1.55	1.50
79	3.12	3.10
80	0.00	0.00
81	0.60	0.90
82	3.12	3.10
83	0.00	0.00
84	1.20	1.50
85	1.10	1.40
86	0.30	1.40
87	2.47	2.40
88	0.00	0.00
89	0.13	1.40
90	0.22	3.00
91	0.00	1.60
92	3.12	3.10
93	0.00	0.00
94	2.35	2.70
95	2.20	2.20
96	0.00	3.00
97	0.00	1.10
98	0.37	0.30
99	0.65	0.60
100	3.12	3.10
101	0.00	0.00
102	1.20	1.30
103	0.20	1.40
104	1.30	0.00
105	0.00	0.00
106	1.45	1.50
107	1.00	1.30
108	1.50	1.50
109	1.50	1.50
110	1.50	1.50
111	3.10	3.10
112	3.10	3.10
113	3.00	0.20
114	2.95	0.20
115	3.12	1.10
116	0.00	0.00
117	2.91	0.20
118	0.00	0.00
119	0.00	0.00
120	0.00	1.60
121	0.00	1.60
122	1.56	1.60
123	3.12	3.10
124	0.00	0.00
125	1.56	1.60
126	1.56	1.60
127	1.56	1.60
128	2.47	2.30
129	0.00	0.00
130	0.00	0.00
131	0.00	0.00
132	0.00	0.00
133	0.78	1.20
134	3.10	3.10
135	3.10	3.10
136	0.00	0.00
137	0.00	0.00

MODE / PIN NO.	EE	PLAY
138	0.00	0.00
139	0.54	1.00
140	3.10	3.10
141	3.10	3.10
142	0.00	0.00
143	0.00	0.00
144	0.00	0.00
145	0.67	1.40
146	3.10	3.10
147	3.10	3.10
148	0.00	0.00
149	0.00	0.00
150	0.00	0.00
151	1.00	1.00
152	3.10	3.10
153	3.10	3.10
154	0.00	0.00
155	1.30	1.30
156	3.10	3.10
157	0.00	0.00
158	3.16	3.11
159	2.23	2.21
160	3.13	3.12
161	0.00	1.50
162	0.00	1.50
163	0.00	1.50
164	0.00	1.50
165	0.00	1.50
166	0.00	0.00
167	3.12	3.12
168	0.00	1.50
169	0.00	1.50
170	0.00	1.50
171	0.00	2.62
172	0.00	1.50
173	1.54	1.50
174	0.00	0.00
175	3.12	3.11
176	0.00	0.00
177	3.12	3.12
178	0.00	0.00
179	3.12	3.10
180	3.12	3.10
181	3.12	0.00
182	0.15	0.16
183	2.32	2.30
184	2.54	2.50
185	3.12	3.12
186	3.12	3.12
187	3.12	3.12
188	0.00	0.00
189	2.50	2.44
190	3.12	3.11
191	0.00	0.00
192	3.12	3.11

MODE / PIN NO.	EE	PLAY
193	3.12	3.12
194	3.12	3.12
195	3.12	3.12
196	1.05	3.12
197	0.00	1.05
198	0.00	0.00
199	1.25	1.34
200	2.17	2.10
201	1.80	1.75
202	0.00	1.90
203	1.80	1.90
204	3.12	3.10
205	0.00	0.00
206	2.20	2.38
207	2.26	2.10
208	5.00	5.00
IC302 161621		
1	3.15	3.10
2	0.65	1.20
3	0.70	1.20
4	0.00	0.00
5	0.92	1.10
6	0.77	1.10
7	3.13	3.15
8	0.71	0.95
9	0.90	1.30
10	0.00	0.00
11	0.86	0.90
12	1.10	1.50
13	3.16	3.10
14	0.00	0.00
15	2.97	2.90
16	1.54	1.60
17	2.35	2.70
18	3.13	3.10
19	1.23	1.00
20	0.64	0.30
21	0.64	0.70
22	1.23	1.20
23	1.42	1.40
24	1.32	1.30
25	3.13	3.10
26	0.00	0.00
27	1.47	1.40
28	1.40	1.40
29	1.16	1.40
30	0.60	1.40
31	0.60	0.90
32	0.00	0.00
33	0.00	0.00
34	3.13	3.14
35	1.54	1.50
36	0.00	0.00
37	0.30	0.00
38	3.13	3.14

MODE / PIN NO.	EE	PLAY
39	0.53	1.20
40	0.56	1.20
41	0.93	0.00
42	0.00	1.20
43	0.59	1.10
44	3.14	3.14
45	0.92	1.40
46	0.84	1.50
47	0.00	0.00
48	0.87	1.40
49	0.77	1.10
50	0.00	0.00
IC303 161621		
1	3.15	3.10
2	0.65	1.20
3	0.70	1.20
4	0.00	0.00
5	0.92	1.10
6	0.77	1.10
7	3.13	3.15
8	0.71	0.95
9	0.90	1.30
10	0.00	0.00
11	0.86	0.90
12	1.10	1.50
13	3.16	3.10
14	0.00	0.00
15	2.97	2.90
16	1.54	1.60
17	2.35	2.70
18	3.13	3.10
19	1.23	1.00
20	0.64	0.30
21	0.64	0.70
22	1.23	1.20
23	1.42	1.40
24	1.32	1.30
25	3.13	3.10
26	0.00	0.00
27	1.47	1.40
28	1.40	1.40
29	1.16	1.40
30	0.60	1.40
31	0.60	0.90
32	0.00	0.00
33	0.00	0.00
34	3.13	3.14
35	1.54	1.50
36	0.00	0.00
37	0.30	0.00
38	3.13	3.14
39	0.53	1.20
40	0.56	1.20
41	0.93	0.00
42	0.00	1.20

MODE / PIN NO.	EE	PLAY
43	0.59	1.10
44	3.14	3.14
45	0.92	1.40
46	0.84	1.50
47	0.00	0.00
48	0.87	1.40
49	0.77	1.10
50	0.00	0.00
IC304 7W04FU		
1	2.67	2.76
2	2.76	2.76
3	2.76	2.76
4	0.00	0.00
5	2.22	2.21
6	2.23	2.22
7	2.23	2.22
8	5.00	4.99
IC305 7W04FU		
1	1.56	1.56
2	2.48	2.46
3	2.56	2.55
4	0.00	0.00
5	2.47	2.46
6	2.56	2.55
7	2.56	2.55
8	5.00	4.99
AUDIO		
IC305 7W04FU		
1	1.57	1.57
2	0.00	1.56
3	1.57	1.57
4	2.22	1.22
5	1.57	1.57
6	3.05	3.82
7	3.73	4.01
8	4.99	4.89
9	5.03	5.02
10	0.00	2.44
11	3.50	2.47
12	3.20	2.40
13	1.47	2.47
14	0.00	2.09
15	4.91	4.92
16	2.00	2.48
17	2.00	4.49
18	1.49	4.96
19	0.00	0.00
20	5.02	5.02
21	0.00	5.02
22	5.00	5.53
23	0.00	0.00
24	4.90	4.89
25	1.24	5.27
26	0.00	0.00
27	4.98	3.00

MODE / PIN NO.	EE	PLAY
28	4.99	4.08
IC403		
1	5.03	5.03
2	0.00	0.00
3	11.84	11.85
4	12.78	12.69
IC403		
1	0.00	0.00
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	0.00	0.00
6	0.00	0.00
7	0.00	0.00
8	4.75	4.74
9	2.40	2.40
10	2.40	2.40
11	2.40	2.40
12	2.40	2.40
13	2.40	2.40
14	2.40	2.40
15	2.40	2.40
16	2.40	2.40
17	0.00	0.00
18	4.75	4.74
19	0.00	0.00
20	4.75	4.74
21	0.00	0.00
22	4.75	4.74
23	0.00	0.00
24	4.75	4.74
25	0.00	0.00
26	4.75	4.74
27	0.00	0.00
28	4.75	4.74
29	0.00	0.00
30	4.74	4.74
31	0.00	0.00
32	0.00	0.00
33	1.45	0.10
34	0.00	0.00
35	5.10	5.10
36	3.10	3.10
37	3.10	3.10
38	1.57	1.56
39	1.56	1.55
40	1.59	1.58
41	1.59	1.58
42	0.00	0.00
43	3.10	3.06
44	0.00	0.00
45	0.00	1.20
46	0.00	1.20
47	0.00	1.20
48	3.10	0.00

MODE / PIN NO.	EE	PLAY
IC402 NJM4580		
1	5.36	5.37
2	5.37	5.35
3	5.37	5.35
4	0.00	0.00
5	5.36	5.37
6	5.37	5.37
7	5.37	5.35
8	11.80	11.78
IC452 NJM4580		
1	5.36	5.38
2	5.37	5.37
3	5.37	5.36
4	0.00	0.00
5	5.36	5.37
6	5.37	5.38
7	5.37	5.36
8	11.80	11.79
IC453 NJM4580		
1	5.36	5.38
2	5.37	5.37
3	5.37	5.36
4	0.00	0.00
5	5.36	5.37
6	5.37	5.38
7	5.37	5.36
8	11.80	11.79
IC454 NJM4580		
1	5.36	5.38
2	5.37	5.37
3	5.37	5.36
4	0.00	0.00
5	5.36	5.37
6	5.37	5.38
7	5.37	5.36
8	11.80	11.79
SYSTEM		
IC501 HD6417034AF		
1	0.00	0.00
2	3.10	3.13
3	0.00	0.00
4	2.20	1.06
5	2.20	2.22
6	1.70	1.74
7	2.20	0.97
8	1.80	1.82
9	2.20	0.95
10	1.20	0.95
11	1.00	0.94
12	0.00	0.00
13	0.00	2.06
14	0.00	1.27
15	5.00	1.94
16	0.90	1.94
17	0.70	0.92

MODE / PIN NO.	EE	PLAY
18	0.00	1.28
19	0.00	2.06
20	0.00	2.52
21	0.00	2.13
22	0.00	0.00
23	1.20	0.99
24	2.60	2.29
25	2.70	2.52
26	1.50	1.04
27	1.80	2.98
28	2.90	2.33
29	1.80	2.80
30	1.90	1.25
31	0.00	0.00
32	0.90	1.78
33	0.80	2.28
34	2.10	3.93
35	2.20	2.72
36	0.70	0.88
37	0.70	3.77
38	0.70	0.92
39	0.70	0.97
40	0.00	0.00
41	0.70	0.50
42	2.20	1.35
43	5.00	4.97
44	0.70	0.32
45	0.70	0.95
46	0.50	0.25
47	0.50	0.25
48	3.40	0.53
49	4.90	4.84
50	2.60	4.94
51	4.90	4.83
52	0.00	0.00
53	0.00	2.90
54	4.90	4.75
55	5.00	4.57
56	4.90	4.96
57	5.00	4.94
58	0.00	0.00
59	1.60	1.17
60	0.00	0.00
61	0.00	0.00
62	5.00	4.97
63	0.00	0.00
64	0.00	0.16
65	5.00	4.99
66	0.20	3.55
67	5.00	4.96
68	0.00	0.00
69	3.20	0.00
70	5.00	4.97
71	2.40	2.37
72	0.00	0.00

MODE / PIN NO.	EE	PLAY
73	2.40	2.24
74	2.20	2.11
75	5.00	4.97
76	5.00	4.96
77	5.00	4.97
78	5.00	4.97
79	4.80	4.81
80	4.90	4.98
81	0.00	0.00
82	0.00	0.00
83	5.00	4.98
84	4.90	4.97
85	4.90	4.98
86	4.50	4.98
87	1.60	2.20
88	4.90	0.00
89	0.00	0.00
90	0.00	3.11
91	0.00	0.00
92	0.00	4.07
93	0.00	3.11
94	0.00	0.00
95	0.00	4.00
96	0.00	0.00
97	4.95	4.97
98	4.95	4.97
99	4.95	3.58
100	2.07	2.10
101	4.86	0.00
102	4.24	0.00
103	4.75	4.97
104	2.96	4.93
105	4.95	2.53
106	0.00	0.00
107	5.03	5.03
108	4.99	4.97
109	0.00	3.11
110	0.00	0.00
111	5.00	4.97
112	0.00	4.97
IC502 FLASH ROM		
1	0.50	0.90
2	0.90	1.00
3	1.00	1.20
4	3.80	2.80
5	1.00	1.50
6	0.60	2.90
7	4.00	3.70
8	2.30	2.92
9	0.20	0.20
10	0.20	5.00
11	5.00	5.00
12	5.00	4.47
13	3.70	4.40
14	0.20	0.10

MODE / PIN NO.	EE	PLAY
15	0.20	0.20
16	0.43	0.60
17	0.30	0.40
18	1.80	2.20
19	1.20	2.09
20	2.80	2.70
21	2.40	2.51
22	3.00	2.80
23	2.60	2.50
24	2.50	2.50
25	2.30	2.30
26	0.55	0.70
27	0.00	0.00
28	1.20	1.30
29	2.26	2.12
30	2.08	2.12
31	2.20	2.22
32	1.66	1.96
33	1.75	1.88
34	1.13	1.34
35	2.19	1.89
36	1.68	1.70
37	5.00	5.00
38	1.82	1.76
39	1.29	1.13
40	2.17	2.10
41	2.05	2.26
42	1.25	1.34
43	2.49	2.47
44	1.05	1.20
45	2.15	1.80
46	0.00	0.00
47	5.00	5.00
48	1.40	2.17
IC503 16256HK		
1	4.98	4.96
2	2.10	2.25
3	2.18	1.70
4	1.73	0.00
5	2.19	2.26
6	4.98	4.96
7	1.80	0.00
8	2.19	0.60
9	1.24	1.52
10	1.04	0.00
11	0.00	0.00
12	0.18	0.00
13	4.96	4.93
14	4.87	4.88
15	0.00	0.00
16	2.30	2.26
17	2.53	1.80
18	2.57	0.35
19	3.07	0.35
20	4.97	4.97

MODE / PIN NO.	EE	PLAY
21	0.00	0.00
22	2.33	2.10
23	2.80	0.00
24	1.12	0.00
25	1.62	3.85
26	2.26	0.72
27	1.17	2.18
28	4.85	4.88
29	4.86	4.88
30	3.28	2.17
31	2.03	0.78
32	1.63	1.10
33	1.12	0.78
34	1.63	0.78
35	0.00	0.00
36	1.33	0.00
37	2.03	0.00
38	2.53	0.00
39	2.17	0.00
40	0.00	0.00
IC506 XC9536		
1	0.00	0.00
2	5.00	4.98
3	5.00	0.00
4	0.00	0.30
5	0.00	0.00
6	0.00	0.00
7	4.96	4.94
8	5.00	4.97
9	0.13	0.00
10	4.99	4.97
11	0.13	0.00
12	5.00	0.00
13	0.00	0.00
14	4.99	4.98
15	4.99	4.98
16	3.14	0.00
17	0.00	0.00
18	3.12	3.15
19	4.97	4.98
20	4.99	4.70
21	4.97	4.95
22	4.98	4.97
23	4.97	4.95
24	5.00	4.98
25	0.00	0.00
26	5.00	4.97
27	0.00	0.00
28	0.24	0.24
29	0.70	0.24
30	0.70	0.44
31	4.06	4.03
32	0.00	4.97
33	4.81	4.81
34	4.99	4.98

MODE / PIN NO.	EE	PLAY
35	4.99	4.98
36	4.99	4.98
37	0.00	0.00
38	0.00	4.98
39	2.26	1.25
40	2.18	2.21
41	1.73	1.73
42	2.18	2.16
43	1.81	1.81
44	4.95	4.94
IC505 HC374P		
1	0.00	0.00
2	5.03	5.02
3	2.26	2.13
4	2.20	2.40
5	5.03	5.01
6	0.00	0.00
7	1.75	1.88
8	2.19	1.90
9	5.02	5.01
10	0.00	0.00
11	5.00	5.00
12	5.00	5.01
13	1.80	1.76
14	2.20	2.10
15	5.00	5.00
16	0.00	0.00
17	1.30	1.34
18	1.00	1.10
19	0.00	0.00
20	5.00	5.00
IC504 24C02N		
1	0.00	0.00
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	4.99	4.97
6	4.98	4.97
7	0.00	0.00
8	4.99	0.00
F R O N T		
IC901 78032		
1	5.00	5.01
2	0.00	0.00
3	2.77	2.52
4	2.86	2.86
5	0.70	0.00
6	5.00	5.00
7	4.98	4.96
8	4.93	4.92
9	4.94	4.95
10	4.97	2.89
11	4.97	4.97
12	4.97	3.00
13	4.97	4.96

MODE / PIN NO.	EE	PLAY
14	4.97	3.30
15	4.86	4.90
16	0.00	0.00
17	4.80	4.81
18	0.00	4.31
19	4.78	4.76
20	0.00	0.00
21	4.96	4.98
22	4.97	4.98
23	0.00	0.00
24	4.99	5.00
25	5.00	5.00
26	1.18	1.14
27	4.11	4.12
28	4.96	4.96
29	4.96	4.97
30	4.97	4.96
31	4.96	4.97
32	4.97	4.97
33	4.96	4.96
34	4.96	4.97
35	4.96	4.97
36	4.97	4.97
37	4.97	4.96
38	4.96	4.96
39	4.77	4.97
40	4.80	4.80
41	-21.60	-22.00
42	-22.90	-21.60
43	-22.30	-21.30
44	-17.80	-16.80
45	-12.40	-12.30
46	-9.30	-18.00
47	-18.90	-16.70
48	-15.60	-15.00
49	-17.00	-17.50
50	-16.90	-16.00
51	-18.60	-18.10
52	-18.00	-18.30
53	-18.40	-20.00
54	-20.20	-24.80
55	-18.60	-23.70
56	-16.90	-23.60
57	-18.50	-23.50
58	-18.50	-24.40
59	5.00	5.02
60	-25.00	-27.00
61	-20.40	-20.00
62	-16.90	-16.90
63	-18.00	-18.40
64	-17.80	18.30
65	-17.60	-18.70
66	-17.70	-18.00
67	-17.70	-18.20
68	-17.50	-18.70

MODE / PIN NO.	EE	PLAY
69	-17.50	-18.70
70	-17.70	-18.80
71	-17.30	-19.40
72	-17.30	-19.50
73	-17.20	-21.80
74	-17.20	-21.80
75	-17.20	-21.90
76	-17.10	-21.80
77	-17.50	-21.80
78	-17.30	-21.80
79	-17.30	-21.80
80	-16.80	-21.80
IC801 BA3308		
1	1.76	1.76
2	0.00	0.00
3	1.76	1.76
4	0.00	0.00
5	0.00	0.00
6	4.53	4.52
7	1.77	1.77
8	0.00	0.00
9	1.77	1.77
IC902 7042P		
1	5.09	5.00
2	0.00	0.00
3	5.07	5.00
J A C K		
1	4.55	4.54
2	2.24	2.24
3	3.82	3.82
4	0.00	0.00
5	3.82	3.82
6	2.95	2.63
7	2.24	2.24
8	2.74	2.73
9	3.66	3.17
10	0.00	0.00
11	4.58	4.57
12	2.24	2.24
13	1.94	8.93
14	4.54	4.53
15	0.00	0.00
16	4.57	4.57

	Emitter		Base		Collector	
	EE	PLAY	EE	PLAY	EE	PLAY
S E R V O						
Q2M1	0.00	0.00	4.98	4.98	0.00	0.00
Q2A1	4.67	4.69	4.97	4.01	0.96	2.20
Q2A2	4.97	4.93	4.96	4.93	0.00	0.50
A U D I O						
A401	5.04	5.33	4.32	5.03	4.08	0.00
A402	5.04	5.03	5.03	4.99	0.00	0.00
A403	0.00	0.00	0.00	0.00	5.03	5.02
A404	0.00	0.00	-0.30	-0.30	0.98	0.98
A405	0.00	0.00	0.00	0.00	1.05	0.72
A406	0.00	0.00	0.00	0.00	1.30	0.89
A407	0.00	0.00	-0.49	-0.35	1.31	0.88
J A C K						
Q601	12.74	12.67	11.97	11.89	12.73	12.65
Q602	0.000	0.00	5.03	5.06	0.00	0.00
Q603	0.00	0.00	0.00	0.00	12.72	12.65
Q604	0.00	0.00	5.04	5.03	0.00	0.00
Q605	1.99	1.53	1.31	0.89	0.00	0.00
Q606	1.99	1.70	1.31	1.15	0.00	0.00
Q607	0.00	0.00	0.78	0.00	0.00	0.00
Q608	0.00	0.00	0.77	-0.70	0.00	0.00
Q609	0.00	0.00	0.76	-0.60	0.00	0.00
Q610	0.00	0.00	0.76	0.00	0.00	0.00
Q611	0.00	0.00	0.75	-0.70	0.00	0.00
Q612	0.00	0.00	0.76	-0.90	0.00	0.00
Q613	0.00	0.00	0.76	-0.50	0.00	0.00
Q614	0.00	0.00	0.76	-0.50	0.00	0.00
Q615	5.09	5.09	4.29	4.92	4.96	-1.00
Q616	3.62	3.91	2.96	2.50	0.00	0.00
Q617	1.99	1.74	1.31	1.08	0.00	0.00
Q618	0.00	0.00	0.76	-1.20	0.00	0.00
Q619	0.00	0.00	0.76	-0.60	0.00	0.00